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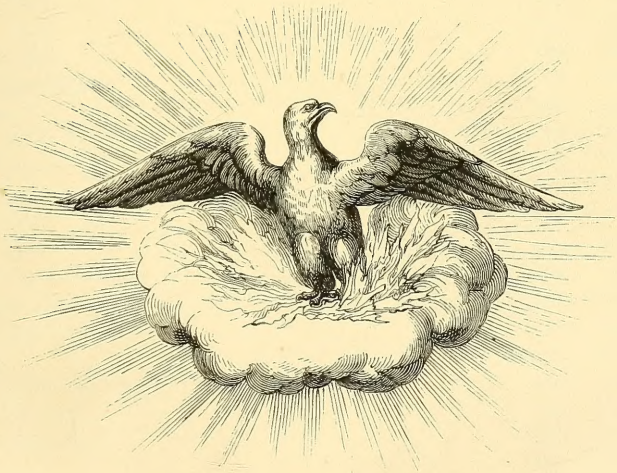
AND THEIR

Eggs.

BY H. L. MEŸER.

VOL. IV.

CONTAINING SIXTY PLATES.



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THE FOURTH VOLUME.

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ILLUSTRATIONS

OF

BRITISH BIRDS.

INSESSORES.
SCANSORES.

PICIDÆ.

PLATE CXXXVI.

BARRED WOODPECKER.

PICUS MINOR. (*Linn.*)

THE Barred Woodpecker is the smallest of the woodpeckers hitherto found in Britain, and is not so rare as is generally supposed; but owing to its small size, and the restless activity of its habits, it is easily hidden from view by the foliage of the trees amongst which it labours for its sustenance. Mr. Selby speaks of having met with this species in Hertfordshire, and Mr. Yarrell gives us to understand that it is not uncommon in the vicinity of London; we ourselves have met with it in Surrey amongst elm and beech trees, and not unfrequently hard at work on the mossy branches of an apple-tree. The habits and manners of this species resemble those of its family previously de-

scribed; he is very lively and nimble, running up and round the stems of trees, and also on and along the under sides of the smallest horizontal branches with great ease and celerity. When ascending the trunk of a tree he will at times run backwards down again, but he always descends with the head upwards. As an engineer, for excavating a hole for the purpose of his night's habitation, or for containing a nest for the reception of the eggs, he is surpassed by none of the larger Woodpeckers in ingenuity, skill, or perseverance; and although he usually chooses the softest material that is to be found for his operations, yet he will not uncommonly be discovered making his hole on the under surface of a horizontal forked branch of an old oak tree.

Sometimes the Barred Woodpecker may be seen perched on the branch of a tree, like other birds of his family, grasping it with his toes, and if so he will be found to have his legs closely drawn up to his body, probably for the purpose of balancing himself steadily. Among his own species, he is as unsociable and jealous, and selfish, as regards his food and worldly possessions as the foregoing, and this accounts for the circumstance of his never being seen in company, except during the breeding season, and after that period with its offspring until the time arrives for them to be sent about their business. Tree creepers, titmice, and golden-crested wrens are frequently seen to follow in the wake of this woodpecker, although the latter takes no notice whatever of them. As the bird now spoken of is not at all shy or fearful of mankind, he may be readily approached sufficiently near for observation, nor does he fly away for some time, but continues to hop for short distances. His flight resembles that of the spotted woodpecker in undulating progress, lowering his position in the air by drawing the wings close to the body, and rising again by flapping the wings in quick succession while they

are extended at full length. The-call note of the Barred Woodpecker is an often-repeated, rather shrill, and long drawn *keek*, *keek*, *keek*, *keek!* This call he utters after having flown some little distance, but rarely when on the wing; and during the pairing season he sits on the top of some tree frequently repeating his call, and gradually shortening its expression during the continuance of each strain.

In the spring of the year the male of this species also vibrates a branch of some tree in the manner before described, and for the same purpose as the foregoing species, but owing to its smaller size he is obliged to beat a branch of less magnitude, and consequently the sound produced is not so loud. The restless and jealous habits of the species become very apparent while the bird is in pursuit of his partner, or whilst driving away an intruder or rival, or while fighting for his right to a chosen hole in a tree, during which times a continual outcry is kept up. The food of the Barred Woodpecker consists entirely of insects, as nothing is found in its stomach either in summer or winter, but spiders, beetles, ants or their larvæ. In pursuit of this food, he climbs up the trunks and amongst the branches of trees, preferring those of lesser size, owing to the bark of these being easier to remove. Plum and apple trees contain many favourite insects of this bird, to which he is consequently a frequent visitor. The scent of this bird nearly approaches to that of musk.

The Barred Woodpecker builds its nest in a hole in some tree, either an old habitation, or one made by it for the occasion, at an elevation of from ten to sixty feet from the ground. The hole is as perfectly round as if made by a carpenter, and not more than an inch and three quarters in diameter and six inches in depth. These birds frequently begin several holes and leave them unfinished, and sometimes even complete more than the one they occupy,

probably the better to escape observation. The eggs, five or six in number, are deposited in the hole on a few splinters and shavings; they are of the most delicate texture, of a pure white, with the yolk shining plainly through. After fourteen days' sitting, the parents are gladdened by the appearance of their young brood.

This Woodpecker is an inhabitant of most parts of the middle and north of Europe, but rarely seen in the south, and is very rare in Holland. Wooded countries are his choice, from necessity, not caring, however, what species of trees constitutes them. Like other woodpeckers, he is found in all parts of the before-named localities, but usually only seen alone, and is consequently considered uncommon.

The size of the Barred Woodpecker is about six inches in length, or more frequently some lines less, and in width he measures, from the tip of one wing to the other, twelve inches. The tail is constructed like that of the spotted woodpecker, but of course is smaller, in proportion to the size of the bird.

The wings are rather pointed in front, but broad at the hinder parts; the first and second quills in the wings are short, the fourth and fifth the longest in the wings; the secondaries are very broad and rounded abruptly.

The beak is small, weaker than that of the great spotted woodpecker, sharply ridged on the upper surface, and triangular, straight and chisel-pointed, measures seven lines in length, two lines and a half high, and three lines broad; lead coloured, black at the tip; inside of the beak flesh coloured. The nostrils are oval shaped, placed in a groove, and covered with strong brown bristles, the tips of which are black. The chin is also covered with similar bristles. The iris of the young bird is chestnut, and in the adult bird blood red. The tongue of this species is furnished with a long horny-pointed tip, armed with barbs, and supplied

with a glutinous substance, and its length, when extended, ten lines beyond the tip of the beak.

The legs of this species are small, and apparently weak; the tarsi are feathered two-thirds of their length down the front, and the remaining part is coarsely scaled; the toes are also scaled on the upper surface, and warty underneath; the claws are neither large, strong, nor sharp; the legs and claws are lead coloured, with the tips of the claws black, and the soles of the feet yellow. The adult male has the forehead, regions of the eyes and mouth, brownish yellow; from the forehead to the back of the head there is a beautiful space of carmine red, palish towards the forehead, and darker towards the nape; the sides are edged with black, which black is continued backwards, forming a triangular patch in the neck with the point downwards, and thus running into the black on the back. The back itself is white, barred across with black, and the rump and tail coverts are also black. A white streak runs over the eyes and along the temples, extending all over the sides of the neck.

From the corner of the mouth commences a dark mustachio, scaled alternately with black and white, becoming all black as it proceeds, and ending in a triangular black spot below the ears, the lower angle of which loses itself in dusky shaft streaks. All the under parts of this bird are white, tinged with wood brown, and the under tail-coverts are spotted with heart-shaped dusky markings. The wings are black, although more dusky than the black of the head and back, and the square white markings on the outer webs of the quills form five or six white bars across the wings. The middle tail-feathers are entirely black, the next and the third have white markings on the tip; the fourth is only black on the roots, with black streaks and tip on a white ground; the fifth pair are all white

with five black bars, and the small outer feathers are black with one white spot near the tips; the under parts of the tail are dull black and yellowish white. The wings below are greyish black with white bars; and the under wing-coverts silky white, with a few oval-shaped greyish black spots, and one deep black spot under the finger quill. The female wants the carmine coloured patch, the black is more rusty and less deep, and the white less pure.

The egg figured No. 136 is that of the Barred Woodpecker.

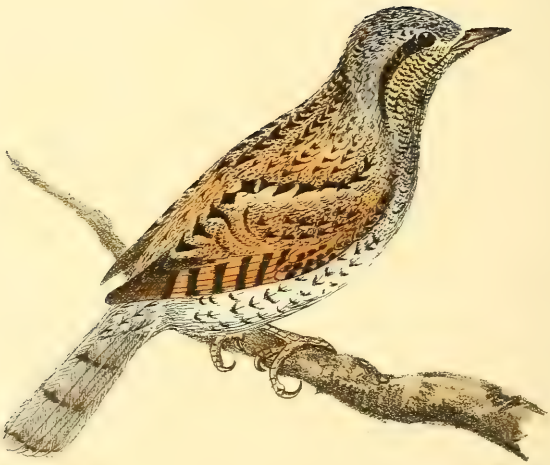


PLATE CXXXVII.

WRYNECK.

YUNX TORQUILLA. (*Linn.*)

THE Wryneck forms the link between the woodpeckers and the tree-creepers in bodily construction, manners, habits, and other respects. This bird is found in Europe, Asia, and Africa; and in Europe has been met with in Greece, Italy, Spain, Germany, Denmark, Sweden, Norway, and even in Lapland, but being migratory, is only an inhabitant of the colder climes during the summer months. This is the only known European species, and it usually visits Britain in the spring, remaining with us until August, and it has been observed that the males always arrive a few days before the females. It has many provincial names in England, such as the Snake Bird, (from the markings on the head and back, and the curious habit it has of twisting and turning its head and neck, as well as from the loud hissing made by it when disturbed in its retreat,) and the Cuckoo's Mate, or Cuckoo's Messenger, in consequence of its generally being the forerunner of the cuckoo, it being affirmed that the latter is never heard before the Wryneck, nor the Wryneck seldom more than a day or two before the cuckoo. The locality chosen by the Wryneck is a woody country, interspersed with meadows and hedge-rows, or underwood;

or an open country containing irregular and unconnected groups of trees, such as orchards or plantations, particularly of willows; and he prefers low moist lands before high and dry localities, so that in mountainous districts he is only seen in and about the valleys. He seemingly also prefers trees of a middle size to those that are more lofty, and may be frequently seen perched on the lower branches, but rarely on the uppermost boughs of a tree; and as his food principally consists of ants, which he takes from the ground, he is most usually found in low bushes or hedge-rows, or on the surface of the ground. The night is passed by the Wryneck in some hole of a tree, for which purpose old pollard trees most readily furnish him with a lodging; particularly as his beak is not formed with sufficient strength to enable him to excavate a cavity for himself, and he is therefore compelled to resort to the deserted hole of a woodpecker, or any chance hole that may present itself to supply his wants.

The Wryneck is a very harmless and quiet bird, who never quarrels with his neighbours, and even the dispute between two male birds for the possession of a female is carried on by them in a few chasing flights, and a little calling out, which latter portion of the contest is followed up while the disputants are perched at a short distance from each other on separate branches in apparent passion, with the feathers of the head and throat much distended and raised; they show little or no fear of man, and if surprised while on the ground, only fly to a short distance. When the Wryneck perches on a branch he always sits transversely thereon, neither does he run up the trunk, or along the horizontal branches of a tree in the manner of the woodpeckers, but always progresses in a half-sideling posture, as if careful not to ruffle his tail-feathers; and when he fastens himself upright against the stem of a tree, he never moves onwards in that position. Perched on a branch his posture is rather upright, but on

the ground he hops about with his knees very much bent, and with long leaps, generally keeping among long grass or weeds in pursuit of his food.

At times the bird now before us moves its head and neck about in a very curious manner, first extending the head to a great length, and then moving it slowly from side to side, or turning it entirely round, and raising the feathers of the head and neck, and fanning with its tail, all the while bowing its body slowly and gracefully, and at the same time making a gurgling or croaking noise like a frog; and it is very remarkable that it is only the birds of mature age that perform this amusing feat, as the young birds have never been observed to do so. The Wryneck is rarely seen long together on the wing, owing to its habit of travelling only short distances from tree to tree, or from bush to bush. Its call note, *cue*, *cue*, *cue*, *cue*, is frequently heard in the spring, as well as the sounds *good*, *good*, *good*, much resembling the call of the hobby; but when the Wrynecks have produced a young brood this call ceases, and they only converse in short sentences, which may be exemplified by an abrupt expression of the word *shick*, more or less frequently repeated according to circumstances, but in such a low and hoarse tone, that it is lost amongst the harmony of the numerous summer warblers whose songs are then so prevalent.

When the Wryneck calls his mate in the spring of the year, he is observed to be perched either on some exposed dead branch, or some projecting leafless shoot of a tree; and as soon as he has obtained a partner he only continues his call in the morning, and shortly afterwards by degrees discontinues it altogether. The place chosen for the reproduction of the species is invariably a hole in a tree, and owing to the number of such holes made by stronger billed birds, there is no difficulty in finding a nest wherever there are trees, and more especially as the Wryneck is by no

means particular in his choice, as it appears to matter not whether the hole is four or five, or forty or fifty, feet from the ground; or whether it is deep or shallow, wide or narrow, provided it is only sufficiently capacious for the purpose; and so indifferent are the Wrynecks in the selection of a situation for their nest, that they frequently place it by roadsides, or where passers by may readily discover the bird sitting on her eggs.

When these birds have chosen a hole, they take possession of it by cleaning it out, and if the wood is soft from decay, they leave a few fresh splinters as a lining; but if otherwise, they are satisfied with depositing their pure white polished eggs (usually from seven to ten in number) in the bare cavity without any lining, and after fourteen days the young birds make their appearance. The young remain in the nest until they are fully fledged, and from the circumstance of the parent birds never cleaning the nest, the stench therein becomes very great, indeed so much so, that the nest of these birds might readily be found by any person with their eyes shut. The Wrynecks are so fond of their young, that it is a very easy matter to take the female, either whilst sitting on her eggs, or even after the young are hatched and fledged. The young birds are fed by their parents with ants' eggs, or the larvæ of other insects; and if the former should become scarce, small green caterpillars frequently constitute part of their food. The food of the adult Wryneck consists chiefly also of ants and their larvæ, but towards autumn they will occasionally feed on elder berries in small quantities; and the manner in which they take the ants is by means of their long tongue, the tip of which is provided with a glutinous substance, to which the ants adhere, and are thus drawn into the bird's mouth; the ants' eggs are taken up by one at a time, after having been speared by the sharp horny point of the bird's tongue. The Wry-

neck chiefly takes the ants from the ground, or from amongst a mass at the foot or stem of a tree, but they do not run up the tree in pursuit of food after the manner of the woodpeckers.

When caged, the Wryneck will live on ants' eggs mixed with german paste; but as few persons possess suitable conveniences for keeping these birds in confinement, it is only proper to observe that they will only live a short time if so confined, and as their song will not repay the care and trouble required in attending upon them, they are more useful in their natural unconfined state.

The Wryneck measures from seven to seven and a half inches in length; the beak is small only measuring six lines in length, three and a half lines in breadth at the base, and two lines thick, being a little compressed at the sides. The colour of the beak is raw amber, with the inside more inclining to yellow and clearer. The nostrils are bean-shaped, and are placed close together in a soft skin near the root of the beak, the corners of which latter, as well as the chin, being furnished with a few thin black bristles. The iris is a bright yellowish brown in the adult bird, and greyish in the young ones. The tongue of the Wryneck is like that of the woodpecker, terminating in a very elastic tube down the throat, and tapering to a horny point forward; but the tip is without barbs, and thus differs in that respect from the woodpeckers. The softer parts of the tongue are covered with a glutinous slimy substance, which serves the bird instead of the before-mentioned barbs, to enable it to secure its prey; in length the tongue measures three inches, and is of an orange colour, the same as the swallow. The legs are rather stout, and they have two toes before, and two behind, the outer of which are longer than those of the woodpecker. The tarsi are bare of feathers from the knee, and are covered in front with

large scales; the toes have smaller scales on their upper surface, and the soles of the feet are rather flat, and warty; the claws are grooved beneath, compressed at the sides, and terminate in very sharp points. The tarsi measure nine lines in length; the outer front toe one inch, including the claw, which measures three lines; the inner front toe, including the claw of two lines and a half, measures six lines and a half; the outer hinder toe ten lines, including the claw of three lines in length; and the inner hinder toe five lines, including the claw of two lines. The colour of the legs and toes is raw umber, and that of the claws dusky. The feathers of the head about the nape are loose, and somewhat elongated, like those of the larks, so that the bird can erect them to form a sort of crest.

The general colouring of the Wryneck is a graduated mixture of brown and grey, with waved crossings or transverse markings of pure black, and the disposition of these colours is as follows. The top of the head is grey, with very fine waved lines of black towards the tip of each of the feathers; the nape is the same, but less distinctly marked; from the back of the neck commences a row of black spots, which reaches down the back, where it is broadest; the lower part of the back, as far as the tail, is ash-coloured, finely marked with black lines and dots, with black shafts to the feathers, some of which are ornamented with arrow-shaped markings; about the shoulders the grey is strongly intermixed with brown, and covered with black arrow-head shaped spots, which are bordered with pale yellowish brown; and on the feathers which lap over the wings is a row of the largest of these black spots, which is continued down the greater wing-coverts and tertials, and ends in a line with the dusky tips of the greater quill-feathers on each side of the back when the wings are closed. The wings are entirely brown with black markings, as represented in the plate. From the

eyes down to the sides of the neck extends a brown band, also marked with black waved lines, over which runs a whitish band commencing from the beak and running over the eye. The cheeks and throat are yellow; the chin is white; the breast and belly are yellowish white, and the under tail-coverts are pale rusty yellow, the tail-feathers are pale ash-coloured, transversely barred with five black bands, which are shaded with brown above and with white below; but two of these bars are hidden by the upper tail-coverts.

The male and female Wrynecks are so much alike, that unless a pair of these birds can be procured to compare together they can scarcely be properly distinguished. The female is somewhat smaller than the male, and her colours are less bright. The egg figured No 137 is that of the Wryneck.

PLATE CXXXVIII.

NUTHATCH.

SITTA EUROPÆA. (*Linn.*)

THE Nuthatch of our isles is the only species known in Europe, and is met with from Norway to the Mediterranean, and also in the northern parts of Asia, and is most plentifully distributed over the central districts of Europe, wherever there are forest trees. Here he remains during the summer months, but in winter he quits the neighbourhood of the woods, and, driven by hunger from an unproductive locality, is generally to be found in orchards and gardens at that season of the year. It should appear also, that neither the severity of winter nor the great heat of southern climes seem to agree with the Nuthatch, as he prefers a more temperate climate. The Nuthatch is not sociably inclined, his only society being that of his mate or his young brood. He is never seen in the company of his species, and more than two of them are rarely found in a tree. During winter, and at the time of migration, these birds are to be met with in company of titmice of all descriptions, but in a flock of those birds it is very unusual to see more than two or three Nuthatches. As soon as the pairing time returns these birds separate, and each proceeds to his given task of love-making in his own way and manner, and at that period no more than two are to be found in any spot. The continual and pecu-



liar call of the Nuthatch readily makes his presence known at all times, it sounds like *quit*, *quit*, *quit*, *quit*, and is incessantly and loudly repeated while he is traversing a tree in all possible directions, and proves the restless activity of this busy-body. The apparent business of the Nuthatch during the day time lies in some old and lofty oak or beech tree, where he may be seen running rapidly about, either up or down the trunk or branches, even to the very top; and at night he takes up his abode in some hole, or in the hollow crown of an old pollard; but he is not often seen on the ground, unless it is under some old favourite tree in search of food.

The general appearance of the Nuthatch is very neat, as he is very careful to keep his feathers clean and in good condition; and when he is either perched, or busied in his usual occupation, he holds his head and back straight out in a line with his beak, his legs are then necessarily much bent at the knees, and his feet drawn up close to his body. The Nuthatch surpasses all other birds in running up and down the stems of trees, and he never balances himself by the aid of his tail as the woodpeckers do, but carefully avoids ruffling it, and is therefore obliged to rely entirely upon the support derived from his long feet and sharp claws. The present species is not shy, and may frequently be observed very closely in the spring of the year sitting on a branch of a tree calling to its mate. Its flight is quick, and owing to the alternate contraction and extension of the wings, is carried on in undulating lines whenever the bird flies to a distance, but in his flight from tree to tree only it is performed in straight lines with flapping wings.

The Nuthatch may be easily tamed, as he will generally take food without reluctance, and in a cage made entirely of wire he is very amusing, but if the cage is of wood he will invariably damage it by his incessant hammering. When introduced into an aviary he soon shows that he is likely to

produce more trouble than profit, for he is meddling with everything; and if he can discover a flaw or crack in any part of the wood-work, he is sure to endeavour to do mischief, and indeed generally succeeds in his intentions.

The food of the Nuthatch consists of insects and seeds, particularly acorns, nuts, hemp-seed, and sunflower, or in case of a deficiency of these, he will consume any kind of grain, such as barley or oats. Amongst the trees he is continually in search of small beetles, earwigs, caterpillars, and the larvæ of other insects, to obtain which he does not dig into or amongst the wood of the trees he frequents, but he procures his supply from beneath the old bark, which he separates from the trees with his wedge-shaped beak, in which employment he may very often be discovered. As soon as the seeds are getting ripe, the Nuthatch proceeds in search of them, and during the winter they form his chie means of subsistence, and among these, nuts are his most favourite food, which he brings from the tree by one at a time, and inserts it in a rent or cleft of a branch, in which he fixes it firmly, and continues to hammer at it with his beak until he has broken the shell, after which he feeds upon the kernel piecemeal. The position in which the Nuthatch places himself in order to strike the nut with the greatest force is remarkable for the power of instinct which it exhibits. He commences by securing a firm footing on some branch a little above the place in which he has placed the nut, and then striking with a sideling motion, he brings his whole weight to bear upon and give additional force to the action of his bill upon the surface of the nutshell, and it is very seldom that the bird does not succeed in breaking into it even if ever so hard. After the Nuthatch has satisfied his immediate wants, he may be seen to procure, and lay up, a store for a future time of need, and he gives a lesson to mankind not to trust to one place of security in hoard-

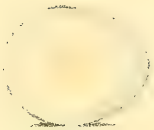
ing treasure, as he takes care to provide several hiding-places for his purpose. In the month of March the Nuthatch begins to think of providing himself with a mate, and then retires to some wooded locality, when the male and female commence their arrangements for making their nest in some hole of a tree from twenty to sixty feet from the ground. Having made choice of a cavity, they lessen the size of the aperture if it is too large, by plastering it up with clay, leaving only a sufficient opening to admit one of them at a time. The foundation of the nest within the cavity consists of a few dry oak or beech leaves, or the scales of fir cones, on which the female deposits eight or nine eggs (grayish-white, spotted with reddish-brown), from which the young birds are produced after thirteen or fourteen days' incubation. The Nuthatch breeds only once a year; and the young are fed by their parents upon small caterpillars, until they leave the nest and are able to fly, after which they subsist on insect food. The Nuthatch very much resembles the kingfisher in shape, but is so very different in its plumage, that no mistake of one for the other can possibly occur. In size it does not exceed the house-sparrow, being five inches and three-quarters in length. The beak measures about eight lines in length, three lines thick, by two lines and a half in height at the base; it is of a very hard substance, and shaped very much like an awl, and sharp-pointed. The tip of the beak is dusky, the rest lead-coloured, but white at the root of the lower mandible: the inside of the beak is pearl-coloured, the swallow flesh-coloured, and there are some black bristling hairs about the gape and chin. The iris is of a bright chestnut-colour. The legs and toes are covered with scales, and are of an umber colour; the tarsi measure nine lines in length, the middle toe measures ten lines, including three lines for the claw, and the hinder toe also is ten lines in length, of which the claw measures five lines round the

curve. The whole upper part of the bird is blueish ash-colour: a white band extends over the eyes; and a black band commences at the nostrils, which, passing through the eyes, is continued over the temples, and prolonged down the sides of the neck: below the eyes and this black band every part is white, including the cheeks: the throat also is white, and the whole of the rest of the under parts are reddish rust-colour, which is deeper about the neck and sides of the breast. The thighs and under tail-coverts are fine burnt sienna, the tips of the latter feathers being clear white: the spurious wing-feather is black; the largest has a white edge. The quill-feathers are cinereous dusky, the largest white at the roots. The two central tail-feathers are blueish-ash, the others are black, with blueish-ash-coloured tips on the outer webs; the outer feathers have a white space between the black and the gray tip on the outer web, and a square patch of white on the inner web; the next feather has some white also, but in a smaller degree, as have also the third and fourth feathers. There is no difference in the plumage of these birds between the male and the female.

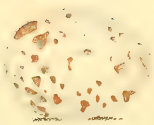
The egg numbered 138 is that of the Nuthatch.



136.



137



138



INSESSORES.
SCANSORES.

CERTHIADÆ.

PLATE CXXXIX.

TREE CREEPER.

CERTHIA FAMILIARIS. (*Linn.*)

THE Tree Creeper, or Common Creeper, as it is more generally called, is a well-known species in Britain, is also found in abundance in most parts of central Europe; and in Sweden, Norway, and Russia it is frequently met with during the summer months. This bird must be considered as migratory, arriving in March at the place where it breeds, and departing in September or October for more sheltered localities; although with us they remain throughout the year, wherever the locality suits them. They travel either by themselves or in pairs, and often in company with the titmice.

The favourite locality of the Tree Creeper is a well wooded country, and all descriptions of trees seem equally suitable for it, whether pine, oak, elm, or willow, provided they have attained a large size, and such as may be called forest trees; and, as rough-barked trees afford this bird most employment, the stem of an old oak is a proper place to look for it; although the peculiar voice of the Tree Creeper will more readily inform us where it may be found, than to search for it from its appearance. The stem and larger branches of the tree are the most usual habitats of the Tree Creeper, as, from the generally smooth surface of the smaller

branches, the bird in question is rarely found to run upon them of its own accord; nor is it frequently seen running about on the ground. The habits of the Tree Creeper are lively and nimble, perfectly harmless, quick in all its movements; and although it shows no fear of mankind, it invariably runs to the opposite side of the stem or branch to that on which it happens to be when approached, and not unfrequently runs swiftly up the stem, and flies from thence unseen to a neighbouring tree, thereby eluding the pursuit of the sportsman or bird-catcher. The sharp-pointed and greatly curved claws of the Tree Creeper enable the bird to run up the stems and along the horizontal branches of trees with incredible swiftness and security, and even to move rapidly on the under surface of such branches, after the manner of flies against a ceiling. Its progress consists in a series of sudden jerks, in which it is aided by its elastic spring-formed tail, which also serves the purpose of steadying it when at rest. Its head is generally carried in a straight line forwards, and at a sufficient elevation to enable the curved slender beak to be carried clear of any roughnesses in the bark of the tree. Like the woodpeckers, the Tree Creeper is unable to run with its head downwards along the stem of a tree or other object; indeed, this seems to be the exclusive privilege of the nuthatch, which is the only bird known to do so with us. The flight of the Tree Creeper is similar to that of the titmice, in undulating lines through the air; but is much more rapid, to which its slender body and smooth feathering contribute very much. This bird does not fly to any great distance at a time, but travels from tree to tree, alighting at the foot of the tree, then running up the stem, and again shooting down from the top of one tree to the bottom of the next, and unerringly attaining its desired position, and thus continuing to employ itself until evening approaches, and the bird is obliged to look for a

hole in a tree, or the decayed crown of a pollard, wherein to roost. It is very rarely that the Tree Creeper is to be found sitting or standing still, unless the bird has just met with food, and is in the act of enjoying its meal; or, if it is frightened, when it will follow the example of the golden-crested wren, and remain perfectly motionless for a time; but at all other times of the day the bird is indefatigable in its exertions, and ever on the alert and active in its occupation.

The note or call of the Tree Creeper is a very shrill sound, like the word *tree*, *tree*, often repeated; and, from its exceeding sharpness, and the great rapidity with which it is pronounced, is excessively unpleasant and painful to listen to, particularly in a room, if any one has the good fortune to obtain a whole brood of these birds, as was our own case. The restless nature of the Tree Creeper prevents its being often kept in confinement. The fledged nestlings are very much in their appearance like mice, and will hide themselves in any drapery they may meet with in a room; and therefore, if brought in doors, are frequently difficult to find if they are allowed the liberty of going where they please.

The food of the Tree Creeper consists chiefly in insects and small seeds, the former of which the bird principally seeks for among the roughest bark of trees, and occasionally amongst decayed and cracked wood-work in old fences or buildings, its long slender beak being beautifully adapted for extracting its food from out of the cracks and fissures, which it swallows as soon as obtained. The smallest beetles seem to be a favourite morsel, as well as the larvæ of butterflies and spiders. During winter the Tree Creeper comes into farm-yards and villages, in search of the insects that the rays of the sun may bring out of their hiding-places about noonday at that season.

About the month of March the Tree Creepers resort to the woods for the purpose of breeding; and, if they meet with willows of a large size, they are sure to select them as a locality for their nests. A narrow slit or crack in the tree is generally the situation in which the nest is placed; but we have found a nest between two adjoining stems of a yew tree, which were growing up together, and another nest between two adjacent portions of wooden palings. In both instances the nest was very much compressed, as though it had by some chance been squeezed together. An old deserted hole of some titmouse is a welcome nursery, to which the Tree Creeper will return the following year; but although they have generally two broods in the year, they are not known to deposit their eggs in the same nest twice during the same summer. The nest is composed of small dry roots and twigs, thin bark of trees, straw, and dry blades of grass, which are all interwoven with spiders' webs and the remains of the cocoons of caterpillars, and the inner lining is of the latter soft material, and feathers of various sizes: where there is but little room, the feathers are sometimes dispensed with; but the bark of trees is always present, and is thus a characteristic mark of distinction.

At the first brood the female generally deposits from eight to nine eggs; at the second, rarely ever more than four or five, which are hatched in thirteen days, both the male and female bird sitting by turns on the eggs.

The young brood is fed with small caterpillars; and they remain in the nest until they are fully fledged, although it is long before the tail has completely attained to its full size, as it grows much more slowly than the other feathers. If the young are disturbed, they crawl out of the nest up the tree; but if they should fall to the ground, they run quickly amongst the grass and hide themselves, and are almost certain to make their escape. When they quit the nest at the

proper time, they are headed by the parent birds, who feed them constantly, and teach them the manner of obtaining their food, until they are able to shift for themselves. Where a person can have the opportunity of observing the happy little family under these latter circumstances unseen, their actions are well worthy of watching.

The Tree Creeper is one of the smallest of British birds, measuring, from the tip of the beak to the extremity of the perfect full-grown tail, from five to five inches and a quarter. The beak is long, narrow, and slightly curved, very sharp-pointed, much compressed towards the tip, and sharply ridged on the upper mandible, which is also somewhat larger than the under one. In colour the upper mandible and tip of the lower are dusky, the rest of a dull yellowish white. The length of the beak varies in old birds from six lines and a half to ten lines, and at the root it is one line and a half broad, and the same in thickness. The nostril is a small slit in the fleshy part of the head at the upper base of the beak. The tongue is narrow and horny towards the tip, which seems divided into threads, and consequently is unfit for spearing insects. The iris is small, and of a clear brown colour. The legs and toes are well proportioned to the size of the bird; but the claws are very long and curved, of a pale yellowish brown tinged with pale flesh-red. The tarsi measure seven lines and a half; the middle toe without the claw five lines and a half; the hinder toe is four lines long; the claw of the former being about four lines in length, and of the latter from six to seven lines.

The feathering is as follows: the spaces between the beak and the eyes are brownish ash-colour; a white band runs over each eye, and terminates at the side of the nape in a white spot; from the eye to the ear runs a dusky streak; the cheeks, brownish ash spotted with white; the top of the head, dull dusky, intermixed with ochre, yellow, and dull white drop-

shaped shaft streaks; the entire back of the neck, back, and shoulders, the same, with larger spots; the rump, brownish-ash, tinged strongly with rust-colour. All the under parts, from the pure white chin and throat, are pearl white, tinged with yellow about the sides and vent; the under tail-coverts are reddish-yellow, with white tips to the feathers. The quill-feathers are dusky black, with a white tip to each, largest on the three last feathers, where they form a triangular spot; from the fourth to the fifteenth quill-feather runs a yellowish-white band through the middle of each, thus forming a bar on the closed wings, which bar has marked angles, and seems closed in with black, as it is only when the wings are extended that the white band across them is perfect and straight. The larger wing-coverts are dusky, with triangular white spots at the tips of the feathers and outer webs, and these white tips are yellowish on their upper edges; the secondary wing-coverts and tertials are dusky, with white elongated or pointed spots; the tail-feathers are brownish-ash, yellowish towards the outer edges, and dusky along the pale brownish-yellow shafts. There is no apparent difference between the male and female in the feathering, or at least none that can be detected unless they are closely compared together.

The egg figured 139 is that of the Tree Creeper.



PLATE CXL.

HOOPOE.

Upupa epops. (*Linn.*)

The Hoopoe is an occasional visitor with us, and is one of those birds whose habits are solitary, and consequently it is not often seen, although it is generally known all over Europe, even as far north as Lapland, but there only as a summer visitant, and is also found in some parts of Asia and Africa. About the beginning of April the Hoopoes arrive, and spread over the greater part of Europe, where they remain to breed, and return again towards the south, by very slow marches, about the middle of July. When the Hoopoes migrate, it is either singly or in pairs, unless the young brood follows close in the rear of their parents; and their journeys are performed in the night. It is said that a large number of these birds are seen together in autumn in the south of Italy, where they apparently congregate for the purpose of crossing over to Africa, in flocks, for the winter. The locality chosen by the Hoopoe is a woody cultivated country, intersected by meadows and pastures, as these birds appear to covet the company of cattle. Whether the country is hilly or flat, seems to be little regarded by them; but they prefer moist land, and the vicinity of water, to dry barren soil. It appears to be immaterial to the Hoopoe what timber trees exist where he takes up his abode, provided there is a good intermixture of underwood

and foliage, as, although it is most frequently seen running about on the ground, its great timidity keeps it close to bushes and trees, in which it can readily conceal itself. At night the bird now under consideration roosts on the branch of a tree amongst the thickest foliage, but rarely in a hole. The Hoopoe is the most timid bird imaginable, which may probably account for the rarity of its appearance: it is at all times, in its wild state, afraid of mankind; and while on the ground, the shadow of a small bird flying over it invariably frightens it; and when a hawk, or even a crow, sails over the bird, it will throw itself flat on the ground, with its wings and tail extended, so as to appear like a piece of cloth, or anything rather than a bird, and this ludicrous position is maintained until the danger is past.

The Hoopoe has a very different appearance from any other bird of its size, owing to the crest on its head, which it mostly carries closed, this forming, with its long curved beak, something of the appearance of a pickaxe. When perched on a branch and calling to its mate, or when irritated, its crest is raised, as also the feathers of its throat, and its beak is lowered; and sometimes when flying leisurely about, it may be observed to open and close its crest, after the manner of a lady playing with a fan.

When on the ground the Hoopoe struts about in a very stately and consequential manner, nodding its head at every step; and if the bird finds plenty of food, it may generally be seen about the same spot for several days together: this may probably account for its loitering habits when on a journey of migration. The Hoopoe seldom or never perches on a slight branch of a tree, but on such branches as are well covered with foliage. During the pairing season its perch is frequently the top of a tree, from whence the bird utters its harsh inharmonious call-note, *tzyrr*, *tzyrr*, or its amorous cry of *hoop*, *hoop*, from which latter it derives its name,

and which has been compared to the barking of a small dog when heard at a distance. The bird appears to use great exertion in uttering its call-note, for it has its crest always erected, the feathers of its throat extended, and nods sharply and continuously with its head.

On the arrival of the male bird at the place chosen for breeding, it commences its call, which it keeps up the whole of the day until it meets with a mate, after which it is heard less frequently, and is entirely discontinued about the end of July.

The Hoopoe is very easily tamed when young, and attaches itself so much to its master or keeper that it will readily accompany him abroad, without any effort to escape by flying away. The greatest difficulty in preserving them during confinement arises from their beaks becoming too dry at the tip, and splitting in consequence, whereby the birds are starved, from their inability to take their food. The Hoopoe feeds principally on coleopterous insects, which it takes from the ground with its long slender beak. Wherever any decayed animal or vegetable matter has lain on the surface, there it is busily employed in searching for and devouring the small beetles and maggots usually to be found in such places. The beak of the Hoopoe seems to be expressly formed for the purpose of drawing forth beetles and other insects from a depth of one or two inches in the ground, or from beneath heaps of manure in the fields, as the tip is horny, and for some length neither scooped nor tubed, and may consequently be forced into the ground with considerable violence, without sustaining any injury thereby. The most likely place to find a brood of the Hoopoe is in a hole in a tree, though a hole in an old wall or rock, and sometimes even the bare ground, is made use of for the purpose of incubation. The female deposits her four or five eggs on whatever substance she may find in the hole she has selected,

without any further preparation, unless a few dry roots or stalks of grass are easily to be procured ; or, when on the ground, they are laid on a few bents and cow-dung negligently heaped together. The eggs vary in colour from yellow to greenish grey.

The female sits full sixteen days on her eggs before they are hatched; and when the young come forth they are irregularly covered with long gray down, and their beaks are very short and straight: they grow very slowly, and remain in the nest until they are perfectly feathered; then one after another creeps out of the nest, and either makes for the same branch or for the ground; and when assembled they are watched over by their parents, who continue their care of them for a long time.

The Hoopoe is from eleven to twelve inches in length, from the tip of the beak to the extremity of the tail; and its width, when the wings are expanded, is from nineteen to twenty inches from tip to tip. The wing, from the carpus to the tip, measures six inches and a half; and the tail, four inches. The first feather in the wing is very short; the second, third, and fourth, longer as they approach the fifth, which is the longest in the wing, the sixth being again shorter, and the next one also decreasing in length, the wing has a very rounded appearance: the next feathers in the wing are broader, and almost square at their tips. The ten tail-feathers are almost equal in breadth and length, with blunt squared tips, thereby giving the tail the appearance of having been cut off with a pair of scissors. The beak is fully two inches long, and is narrow, slightly curved, and rather broad at the base; the tip is blunt and the ridges are both raised, and sharp, giving thus a triangular shape to both mandibles. The beak is only roofed or hollow where the short tongue lies; and the rest of it is solid,—differing in this respect from the beaks of most other birds. At the base it is of a soiled flesh-colour, towards

the middle reddish-ash, and ending in a dusky tint towards the tip. The nostrils, which are oval and transparent, are close to the forehead, and partly covered by the feathering. The iris is dark brown.

The legs are not large, but are strongly made: the tarsi are feathered in front above the knee and naked behind; the space from the knee to the foot is short, and coarsely scaled, as are also the upper surfaces of the toes; the claws are remarkable for being almost spoon-shaped, grooved, and sharply edged. The colour of the legs is a blueish-gray, and the claws are horn-colour.

On the top of the head the Hoopoe has two rows of elongated blunt-pointed feathers, the longest of which measures as much as two inches on the crown, and shorten towards the nape and the forehead. These feathers are generally laid flat, or down towards the back, but the bird has the power of raising them, so as to form a most beautiful crest, by means of two very strong muscles placed just under the skin of the head. These feathers, when raised, turn in their sockets in such a manner that the upper side of the webs appear to lie side by side of each other. The colour of the crest-feathers is a pale rusty yellow, which is darkest towards their edges: the tip of each of these feathers is black, which is divided by white from the yellow. The entire face of the bird is pale or faded rusty yellow, and is almost white at the chin and throat, where the feathers are broader and shaggy. The back of the head and neck are of the same colour, but rather paler, and tinged with red. On the breast the colour becomes more faded, and loses itself finally in the white of the under parts. The cheeks and temples are tinged with ash-colour. On the lower part of the neck the rust-colour becomes mixed with a purplish ash-colour; and this extends over the back, and is terminated by a black band reaching across the back: below this another lesser black band separates it

from the pure white of the rump. The upper tail-coverts are quite black. The thighs are tinged with rust-colour, and dashed with more or less strongly marked shaft-streaks of a grey colour. The under tail-coverts are white. The lesser wing-coverts are pale rust-coloured, with a tinge of brown; and the larger wing-coverts are black. The wings are barred with black and pale rust-coloured white: the quill-feathers have only one white band across them towards their tips. The tail is black, with a white crescent-shaped band. The male and female are nearly alike, but the crest of the latter is not quite so large.

The egg figured 140 is that of the Hoopoe.

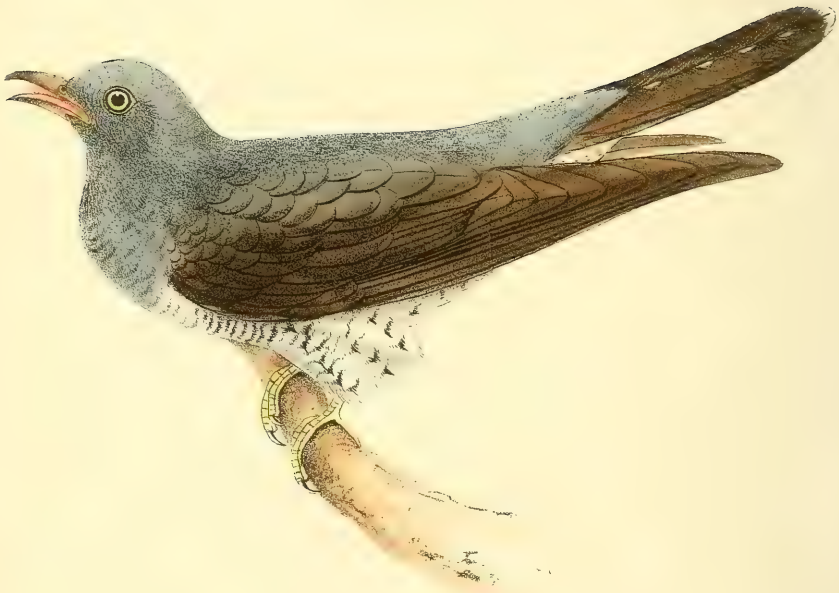


PLATE CXLI.

CUCKOO.

CUCULUS CANORUS. (*Linn.*)

THE Cuckoo is so well known to every one, that we need only to remark, that, besides visiting the British Isles, this bird is met with as far north as Norway, during the summer, in Europe. Asia, and many parts of Africa, are also enlivened by its pleasing mellow call-note. The Cuckoo makes its appearance with us in the month of April, and is generally either the forerunner of summer weather, or travels hither with it. The male is generally a day or two in advance of the female. Their journey is performed during the night; and they frequently return to take up their abode in the neighbourhood occupied by them in a former season. The locality usually chosen by the Cuckoo is wherever there are trees, without being at all particular as to the species, or of what age or size they may be. We have seen these birds most numerous where hedge-rows are very thick, and plentifully intermixed with forest or timber trees, about rich pasture land and in sheltered and secluded situations; but more than one pair is rarely seen within the bounds of a certain district; for though these birds will live peacefully as neighbours, yet they do not allow of trespassers on their hunting-grounds, and intruders are generally punished for their temerity. The Cuckoo is a wild and timid bird, very

strong on the wing, but when on the ground apparently helpless and clumsy. It therefore suits this bird better to fly even a short distance, than to reach it by hopping on the ground. Its perch is generally on a strong branch of a tree, or occasionally on a post or gate in a field, from whence the Cuckoo can look out for its food or enemy. In case more than one pair of these birds are frightened, or started on the wing, they show their unsociability very much by not flying away together, like most other birds, but each pair separates from the rest and takes its own course, although the female is never far behind the male, who is careful not to desert her. The flight of the Cuckoo resembles that of the sparrow-hawk; it is scarcely so rapid as that of the pigeon; but it excels in making short turns, or evolutions.

The well-known pleasing call of the Cuckoo, in the spring of the year, stands in the place of the song of other birds, and helps to complete the concert of Nature. This call has furnished the bird with its name, after the manner of the "sweeps," and "old clothes" men. When the bird is courting, and gets in ecstacies, it sometimes lengthens its call to *cuckookook*, and this is frequently twice or three times repeated. In the pairing season, the Cuckoo begins its call soon after midnight, and repeats it more than a hundred times in succession, without changing its perch; after which it rests for a time, recommences, and then again rests, and thus continues until the morning light reminds the bird that the time has arrived for him to break his fast, and he then starts off on the wing in search of food. These birds also call out while flying high in the air; and they produce a sound like *gwa*, *wa*, *wa*, which is considered by some as an indication of the near approach of rainy weather; but whether this opinion has any foundation in facts, we will not undertake to determine. The Cuckoo feeds on insects and their larvæ, by choice, however, on hairy caterpillars in all stages, cock-

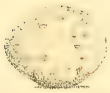
chafers, grasshoppers, butterflies, and moths; and, like the hawks and owls, the Cuckoo casts up the indigestible parts of its food, in the usual form of pellets. Young birds may be brought up with raw meat when kept in confinement, although they are not worthy of the great trouble they occasion. The fact that the Cuckoo does not build a nest for itself, and that several small birds that feed upon insects are made to hatch its eggs and to bring up its young, is sufficiently established.

How the female cuckoo manages to deposit her egg in the nest of another bird has not been satisfactorily described: so much, however, is known, that the female goes singly about this business, without her mate being near; but whether this is for the purpose of watching her opportunity, or for going more stealthily about her designs, is still an unanswered question. The number of eggs deposited by the Cuckoo during the season varies from four to six; but these are laid at such distant intervals, that some may be found in May, and others as late as July. It is insisted on by some persons, that the Cuckoo sucks the eggs of other birds; and to strengthen this assertion, they state that they shot a Cuckoo that was actually in the act of carrying off an egg; the most probable explanation of which is, that the female Cuckoo was carrying her own egg, which she had laid on the ground, to the nest of some other bird; and although no one has hitherto been able to detect the whole of the proceedings of the Cuckoo, it is possibly by these means that her egg is smuggled into the warbler's nest. The egg of the Cuckoo is very small in comparison to those of other birds of its size; but the reason for this is obvious, and it must be considered as a beautiful provision of nature. The egg of this bird is readily distinguished from all others by the black specks and scratches on its surface. It is very wonderful that small birds of divers kinds should be so far imposed upon, as to spend their

time and affection upon such a disproportionately large and unsightly thing as a young Cuckoo: we have watched them, however, and have ascertained the facts, even with a mature yellow bunting and a young Cuckoo in a cage, as described by us at page 50, vol. iii. of this work.

The Cuckoo measures, from the tip of its beak to the extremity of the tail, thirteen inches and a half; the wing, from the carpus to the tip, measures eight inches and three-quarters; the tail, six inches and three-quarters; the beak, ten lines; and the tarsi, ten lines and a half. The iris, corners of the mouth, and legs are full yellow or pale orange; the eye-lids are of remarkable beauty, being so transparent, that, when closed, the colours of the pupil and iris can be distinctly seen. The head and all the upper parts are blueish-ash coloured; the throat and forepart of the neck and breast, the same. The quills and tail are dusky; the inner webs of the quill-feathers are beautifully barred with oblong pure white spots, from the root of the feathers to within an inch and a half of their tips. The rump is blueish-ash coloured, which colour also extends over part of the outer edges of the webs of the middle tail-feathers. The tail-feathers are spotted with white along their shafts, and the tips of them are all white. The under parts are all white, barred transversely with dusky. The under tail-coverts are tinged with yellowish rust-colour. The bill is dusky yellow at the base, the inside is orange. The young bird is brown all over, the upper parts barred with red, brown, and white; the under part sare dirty white barred with black; the quill-feathers are spotted with red brown, and the tail the same. The iris of the young bird is dusky.

The egg figured 141 is that of the Cuckoo.





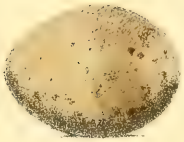




PLATE CXLII.

AMERICAN CUCKOO.

CUCULUS AMERICANUS. (*Linn.*)

THE American Cuckoo is one of those rare occasional visitants, which ranks amongst British birds in consequence of its having been found in a wild state in this country in two or three instances; but there is no record of its breeding in Great Britain. North America is the native country of the bird now before us; and for as much of its history as we are now enabled to give, we are indebted to the American ornithologists. The American Cuckoo differs in some of its habits from our well-known summer visitor, figured in the preceding Number, and chiefly in building a nest and hatching its young like other birds. The nest, which is said to be generally placed in the forked branch of some middle-sized tree, is constructed of roots, and lined with wool. The eggs are three or four in number, of an even bluish-green colour, as represented in our plate; and we are indebted to Mr. Yarrell for the opportunity of enabling us to figure the egg of this bird from his collection. The drawing of the bird we made from a specimen in the British Museum. The head and all the upper parts of the American Cuckoo, including the two middle tail-feathers, are brown; but the texture of the feathers is so silky, that, according to the light in

which the bird is viewed, reflections of either grey, green, or rufous are thrown upon the plumage, and it becomes in consequence a difficult task to represent the bird correctly in a coloured print or drawing, or even accurately to describe it. The head and back have a tinge of grey; the wings and middle tail-feathers incline to an olive colour; the rest of the tail-feathers are black with a white tip, and the whole of the under parts are white. The legs and feet are black. The iris, golden yellow. The upper mandible of the beak is black, with a yellow edge near the gape; the under mandible is ochre-yellow, with a black tip. The length of the American Cuckoo is eleven inches and a half.

The food of this bird consists chiefly of caterpillars and other insects, and their larvæ.

The egg figured 142 is that of the American Cuckoo.



PLATE CXLIII.

WOOD PIGEON.

Columba palumbus. (*Linn.*)

The Wood Pigeon, being the largest bird of its family, stands first in rank, and is a species generally well known: it is found very generally distributed over Europe and Asia, does not appear higher north than the Arctic Circle, but extends beyond the southern boundaries of Europe, spreading over the northern coast of Africa. In the northern parts of Europe and Asia the Wood Pigeon is a migratory bird, and large flocks of them arrive from thence to this country in the autumn, most of which remain with us until milder weather induces them to return to their native countries. The chosen locality of the Wood Pigeon is, as its name indicates, a well wooded country, and by preference where fir trees abound, as they are particularly fond of the seed of the fir cones: acorns and beech nuts also form a considerable portion of their food; and as soon as the corn is cut and carried, the Wood Pigeons may be found in great numbers in the stubble fields, as also in ripe clover, pea, and bean fields, where they seek their support.

It appears to be immaterial to the Wood Pigeon whether the locality is hilly or flat, provided there are lofty trees at hand, and that they are found in large groups, or surrounded by thick underwood.

The Wood Pigeon is a very shy bird, and difficult to approach. The best way to obtain an opportunity of shooting them is to lie in wait for them, thoroughly concealed by hedges or bushes. During the greater part of the day this bird perches on the upper branches of lofty trees, amongst the thickest foliage, pluming itself or resting. When on the wing it flies with great swiftness, and generally at a considerable height in the air, unless the wind is very strong. Its roosting-place is also on the branch of a lofty tree, but is usually so much hidden by the foliage, that it is rarely to be discovered, unless it is started on the wing. The Wood Pigeon runs about on the ground with an easy and graceful gait, nodding its head at every step: its body then takes a horizontal direction, and its tail is kept clear of the ground without any effort for that purpose on the part of the bird. On the slightest appearance of danger, or on the approach of mankind, the Wood Pigeon stretches out its neck, and takes wing. When this bird flies without being afraid, its flight is rather slow and almost heavy, but under other circumstances it shoots through the air with wonderful velocity, by means of very regular and rapid strokes of the wings.

The Wood Pigeon is considered by some persons to be less sociable than others of its family; but in this opinion we do not altogether agree, for of no other species of pigeons do we at any time see such numbers congregated together in the winter; and we are in the habit of seeing several Wood Pigeons daily, walking about a stubble field of one of our neighbours, in company with twenty or thirty tame pigeons. It is also well known that several pairs of Wood Pigeons are frequently found associating together, and bringing up their young in company, and we believe that no animosity has ever been known to exist between them.

Early in the spring, the male bird may be heard at sunrise, sitting perched on some favourite branch, generally beside its mate, when both having plumed themselves, they shortly afterwards commence their flight to a distance in search of food; several pairs that have roosted together in the same wood, and frequently in the same large tree, being seen to follow each other at short distances, and flying in such a manner as to make it appear as if they required a greater space to extend their wings than other birds.

If the habits of the Wood Pigeon are accurately observed, it will be seen that it leads a very regular life, and that it divides the day after the following manner. From six till nine in the morning, the time is occupied in searching for food. About ten o'clock the whole party returns home, and may be heard calling their *hoo hoo, coo, coo hoo.* At eleven the calling ceases, and the party is again off in search of drink, and probably also to bathe, as we know them particularly to delight in the latter exercise. From twelve to two is again set apart for a season of resting, after which they go to feed until five; then return to their wood, where they repeat their concert until seven, when, after having taken some more water, they retire to roost.

We believe, that unless these birds are disturbed in their usual resting-places, or are driven to greater distances than usual in search of food, our account will be found to be very nearly correct, and, as such, may be useful in affording a hint to the sportsman, where and when he may obtain a better chance of getting a shot at a Wood Pigeon, than by watching for him for hours under a hedge or tree. The flesh of the Wood Pigeon is as well flavoured as that of any bird that is brought to table, and there is generally good picking on one that is in good condition. The food of the Wood Pigeon consists, as already stated, of the seeds of the fir, acorns, beech

mast, and, we may add, all sorts of grain, grass seeds, peas, beans, and wild berries. This bird is also very fond of the small grain-like roots of the Ranunculus ficaria, which is found in great abundance in the ozier-grounds on the banks of the Thames, where great numbers of these Pigeons are killed by the fishermen and others.

Many attempts have been made to domesticate the Wood Pigeon, but usually without success. That they are, however, capable of forming a personal attachment with man, we have proved by the following facts. In the year 1836 we had a pair of young Wood Pigeons brought to us, which we kept in an aviary with many other birds: the male bird died at an early age, but the female is, we believe, still (1846) alive. In the spring of 1839 we presented this female Wood Pigeon, with some other birds, to the Zoological Society in the Regent's Park in London; and in the summer of 1841, when visiting the gardens there, as soon as we came to the aviary which contained the pigeons, our old acquaintance came to the place where we were standing, and evidently seemed pleased to see us. While in our own possession, the bird in question used to perch on our head or shoulder to be caressed, whenever we entered the aviary in our garden in which she was kept.

In confinement the Wood Pigeon will live very well on tares, peas, barley, or wheat; but, unless for the purpose of making ornithological observations, it is scarcely worth the trouble attending them to keep these birds caged. The Wood Pigeon builds its nest in the top branch of some lofty tree; the flat forked surface of the branch of a fir or pine affording a favourite support for the nest; and more than one nest is frequently found in the same tree. The nest is an irregular loose stack of twigs and small branches, very flat, scarcely round in form, and the materials so thinly placed,

that the eggs may be seen through the bottom of it from the foot of the tree. As soon as the nest is completed, the female deposits her two white eggs thereon, and in eighteen days the young are produced, after the male and female birds have jointly sat on them by regular turns ; it being a curious fact, that the male bird sits upon the eggs regularly from nine or ten o'clock in the morning, until three or four in the afternoon. The nestlings have their eyes closed, for the first nine days after they are hatched, with a film through which the pupil of the eye may be plainly seen. Their beaks are very thick and shapeless at the base, and the legs and feet are of a dirty yellow colour Their bodies are flesh-coloured, and are thickly covered with pale yellow down.

The adult Wood Pigeon measures seventeen inches in length, from the tip of the beak to the extremity of the tail. The colour of the beak is carmine-red at the base and nostril, powdered over with a whitish dust : the middle is rich ochre-yellow, and the tip lemon-yellow. The iris is sulphur-yellow. The legs are feathered half way down the tarsi, the lower portions or naked parts and the toes being covered with blood-red scales, which scales appear as though they were let in with putty or pale yellow clay : the claws are brown horn-coloured. The head, neck, and all the upper parts of the Wood Pigeon are of a blueish-grey colour, lightest about the throat and thighs : the belly is pure white. On the sides of the neck these birds have scale-like feathers, which reflect various tints from emerald-green to a purple lilac ; and in the midst of these feathers there are twelve or fourteen others of a pure white, the whole forming a crescent-shaped band. The quills are dusky towards their tips, but their shafts and outer webs are milk-white when the wings are closed : the quill-feathers separately have a large white space about the middle, over shaft and all, and partake most of the grey colour of the back towards the root of each feather, and are dusky

about the tips. The tail-feathers are broadly tipped with dusky thereby forming a broad band. The crop is of a purplish violet, tinged with a pale bloom like that of the grape ; and this colour loses itself in the belly. The female resembles the male.

The egg figured 143 is that of the Wood Pigeon.



PLATE CXLIV.

STOCK DOVE.

COLUMBA ŒNAS. (*Linn.*)

THE Stock Dove is distributed all over Europe, is very plentiful in the forests of Norway, Sweden, and Finland, and as far north as trees are found to grow to any size. There is little doubt that this bird is equally plentiful in Asia and part of Africa; but, owing to the unaccountable confusion that has existed in respect of the Stock and Rock Doves until very recently, travellers have generally mistaken one species for the other, and have mixed up their histories together. The name of the Stock Dove is also improper, for the Stock, or domesticated pigeon, has sprung from what is generally called the rock dove; but, in order to settle the question amicably, and to prevent farther confusion, we have here considered it best to retain the name by which this species is most usually known.

It has not been yet ascertained where the Stock Doves pass the winter, for after the month of November they are no longer to be met with in England, nor in any part of Europe. That they travel southward is evident, from the fact that they arrive late in the autumn in the islands of the Mediterranean and Egypt, and early in the spring again first show themselves in the same countries, and afterwards spread themselves all over Europe. Woods and forests are chief, indeed, we may

say, the only haunts of the Stock Dove. In open districts it is never seen except during the period of its migrations. Flat or hilly countries, provided there are abundance of trees, are equally found to be inhabited; but rocky and barren mountains these birds seem to avoid at all times. The localities generally chosen are the outskirts of woods, where cultivated fields and meadows abound, and where trees of all kinds are intermixed, such as oaks, beech, wild fruit trees; or where there are pine or fir plantations on hilly ground, where the underwood does not grow. In the choice made by the Stock Doves of a locality suitable for a permanent residence during their stay with us, it is essentially necessary that some trees should have holes in them; and so requisite does this appear to be, that these birds will prefer an orchard close to human habitations, to any more retired spot where those advantages are wanting. Old decayed apple or pear trees, with stout dead upper branches, are frequently ornamented or tenanted by the Stock Dove, who seemingly delight in perching upon them; but, owing to the formation of the feet of all our pigeons, they are unable to grasp slender boughs. When the Stock Dove perches on the branch of a tree, it is only for the purpose of resting or of avoiding an enemy, as its food is obtained on the ground.

The Stock Dove is a very active bird, not so hurried in its movements as the wood pigeon, but far more nimble. When perched, it carries its body in a more upright position. On the ground it is more alert, and runs with the same stateliness on a large branch as on the ground, and generally nods its head at every step. This bird is very cleanly, and careful of its plumage; and it forms a very pretty object when seen at sunrise, perched on a top branch pluming itself; and when thus engaged, it may be fancied from time to time to be surveying the surrounding country, without changing

its posture. When on the wing the Stock Dove is by far more quick in its movements than the wood pigeon; and on taking flight it claps its wings together once or twice; and when in the act of alighting on a tree, the repetition of this clapping sounds very like the ringing of a small silver bell, so that when there are many of these birds congregated together the noise occasioned by them is very considerable. When this bird is pursued by a hawk, it is wonderful to observe the rapidity of its evolutions, and the swiftness with which it shoots through the thickest masses of branches of trees without coming in contact with any of them. The Stock Dove is more sociable in its habits than the wood pigeon, for it not only flies about in company with many of its species, but also breeds in the immediate neighbourhood of its associates, and is never seen to quarrel with other birds. These birds are also much attached to each other, and if one of a pair is missing, the other will seek incessantly for its mate. It has been reported that the Stock Dove will intermix with tame pigeons; but, from the circumstance of the Stock and Rock Doves having been so frequently mistaken one for the other, the assertion cannot be received with any degree of certainty.

The habits of the Stock Dove are not quite so regular as those of the wood pigeon, it being more restless, and not accustomed to sit still so long at a time; and whilst the female bird is sitting on her eggs, the male very frequently comes to look after her.

When the Stock Dove is startled or displeased, it utters the word *hoo*, and about the breeding season its call extends to *hurcoo* in a higher tone. During his period of courtship, the male sits bowing to his mate, repeating *coo-oo-oo coo-oo-oo*, and this generally occurs in the morning. The nestlings pipe like the young of tame pigeons.

There is no difficulty in taming Stock Doves, but they

will require to be fed at first by cramming. The food of the Stock Dove in a state of nature consists of grain of all descriptions, seeds of vegetables as well as of trees, and also wild berries; but wheat, buck-wheat, rape and hemp seeds are its favourite food, and the quantity consumed at a meal is very considerable.

The Stock Dove resorts in the spring of the year to those forests or orchards wherein old trees are found with decayed trunks or branches, or where woodpeckers have excavated many large holes, for it is only in a hole in a tree that this bird deposits her eggs: it appears to be of no consequence at what elevation the hole is found, whether four or five feet from the ground, or forty or fifty; and if a pair of Stock Doves have made choice of a hole for the current season, or have had possession of it in the preceding year, and intend again to occupy it, they will make their claim to it good, and defend it resolutely by snapping at any intruders, or beating them off with their wings. Having made choice of an excavation, the birds lay a foundation within it of dry sticks of any kind, or even of dead leaves for want of other materials, the size and shape of the nest depending upon the size of the hole, but it is generally constructed very carelessly. The number of eggs deposited does not vary from the usual quantity, namely two of the size and colour represented in our plate. When the birds have sat on their eggs for seventeen days, they begin to look for the appearance of the young pair. These, after both parents have attentively supplied them with food for four weeks, are ready to come out of their nest, and in a few days more are taught to shift for themselves, about which time the parents are making preparation for a second brood, but never in the same hole. The birds of a year old have generally two broods, and the older birds three broods, during the summer. It is well known that pigeons do not appear much to regret the loss

of their young, and soon forget them; but the Stock Dove is so careful of its eggs, that the male or female may at any time be taken off their eggs, with any ordinary caution.

The accurate description of the size, and of the colouring of the plumage of the Stock Dove, becomes a very interesting subject, as bearing upon the decision of the disputed question of the origin of our domestic pigeons, or rather as it at once decides the question. The entire length of the bird now represented in our plate is about thirteen inches from the tip of the beak to the extremity of the tail. Its beak is rather longer, in comparison with the size of the bird, than that of the former species, but its colour is at all ages lighter than that of the rock dove. It is chocolate-coloured with a white tip when young, reddish with a yellow tip in middle age, and in adult birds it is yellow, with the base blood-red. The inside of the beak is yellow; the tongue and swallow, whitish. The eyelids are bluish flesh-coloured; the iris dark red-brown. The legs are feathered half way down in front, the remainder and the toes being covered with scales of a blood-red colour: the soles and sides of the toes are whitish; the claws dusky. The head and neck of the adult male are slate-coloured, the lower parts of the neck reflecting metallic colours. The shoulders and back are slate-coloured, and the lower parts of the back, the rump, and the upper tail-coverts are also of the same slate-colour. The crop is tinged with a beautiful blue grape hue, and is followed over the under parts by a paler slate-colour than that of the upper feathering. The wing-coverts are slate-coloured, as well as the wings, on which latter is a row of black blotches, which take the place of the two rows or bands of black on the wing of the rock dove. The spurious wing and quill feathers are dusky; and the tail has a black band at its extremity.

The egg figured 144 is that of the Stock Dove.



PLATE CXLV.

ROCK DOVE.

Columba livia.

The Rock Dove is an inhabitant of most parts of Europe, and we find it on the rocky coasts of England, Scotland, and Ireland; and in the inland districts it frequents old ruins or towers. It is very numerous along the coasts of the Mediterranean, as also in the north of Africa and in Persia. It is said that the Rock Dove is a summer visitant only in the northern parts of Europe, but we apprehend that the migration of these birds depends as much upon the circumstance of their food becoming scarce, as upon the change in the climate. According to some authors the shelves of the rocks in the Orkney Islands are covered with these birds during the winter months; and throughout Europe the pigeon-house of a farm-yard is as well stocked in winter as in summer; and the tame or dove-cot pigeons are no other than domesticated Rock Doves, which, if they were so tender as to be unable to bear the cold of winter, would never have become so generally domesticated as they are found to be. It is wonderful how the infinite number of varieties of tame pigeons have been produced from one species: diversity of food, and different habits, arising out of captivity, may contribute greatly towards the multiplication of varieties; but however much we may admire the various evolutions of

the "tumbler," or the fidelity and perseverance of the "carrier," their acquisition of all these distinguishing characters is not to be easily explained or accounted for.

In the present history, which is that of the Rock Dove in its natural or wild state, we must remark that we have met with them in the summer or breeding time only in our county (Surrey). A pair of them is frequently to be seen in Cardinal Wolsey's Tower at Esher Place, and also in the observatory at Claremont Park, which verifies the statement of their frequenting towers, and ruins of old brick buildings.

The chosen locality of the Rock Dove is a rocky sea-coast; and these birds, finding shelter and food at all times in this their safe retreat, only occasionally travel inland to breed in some tower or other building. The Rock Dove is never seen perched on the branch of a tree, in which it differs from all the other species: it nevertheless prefers a lofty perch, from whence it can survey the surrounding country, and choose a feeding-ground, for which purpose a stubble field, or one containing a green crop of some kind, is generally selected, or occasionally the banks of a river or the sea-shore. The Rock Dove roosts in a hole of some sort, but not amongst the branches or foliage of trees; and sometimes a single bird of this species may be found to roost on the ground in an open field, and in this situation an early sportsman may get a chance shot at one of them.

In its flight the Rock Dove is among the quickest of birds; and when it is either pursued by a hawk, or startled by the approach of other danger, it is remarkable to see with what velocity they will shoot through the air, with very quick short strokes of the wings, accompanied by the sound produced by their strong pinions. But when the bird only descends, or flies in search of food, it strikes the air more leisurely and with longer strokes; but at all times the sound

gwee, *gwee*, *gwee* is plainly produced. In fine weather, and chiefly in the spring of the year, the Rock Dove circles in the air; and when in the act of alighting the wings are mostly seen to be raised high above the body, and the quill-feathers are beaten loudly together, producing the noise so well known in the vicinity of a pigeon-house.

Although this bird is very partial to high situations, it is nevertheless obliged to descend to obtain its food; and when on the ground it runs very tolerably, although an occasional flutter of the wings is resorted to as an assistance, if additional speed in this situation is required. The Rock Dove is a very clean bird, and its feathers are mostly in perfect order, and in unruffled condition. Its peaceable disposition towards other birds heightens its character still more; and although these birds, like all other creatures, have some private family disputes, yet they live on the whole very amicably together. Their differences seem principally to arise from a disputed right of possession to some particular spot to breed in, one bird often appearing desirous of obtaining a situation already occupied, and if the present possessor does not yield immediately, the parties begin beating each other with their wings, and the quarrel frequently lasts a long time before it is arranged. During the search for food, even when the birds in question appear to be suffering from hunger, no jealousy or selfishness is shewn towards each other.

It is reported that the Rock Dove is not shy; but it is a well known fact, that these birds, when disturbed oftener than once in a day, generally leave the neighbourhood, and retire to those situations where they are not easily to be followed by man. One of the peculiarities of the Rock Dove is its sociability with its own species, for, whether in a wild state or domesticated, this pigeon is found in company in flocks of either large or small numbers, but never alone, unless some misfortune has befallen a single bird; and

all accounts speak of hundreds and even thousands of Rock Doves congregating together by the rocks along some sea-coasts.

The Rock Dove has no song, but a cooing vocabulary, which is much in use during the pairing season; and its courting appears to be such a regular and premeditated matter of business, that it is very amusing to the beholder. The male bird walks up to his chosen bride, with great dignity in his manner and his head carried very high; he then bows most profoundly to her, all the time turning round in circles and half-circles, with a drooping and outspread tail. During this courtship the low rumbling sound which constitutes its note is continually repeated, in expressing which the body is inclined horizontally, so that the beak almost touches the ground, and on raising himself again he takes a step forward; but the advances of the ardent lover are not always met with complacency, the little mate frequently bestowing upon him a slap with her raised wing.

The food of the Rock Dove consists of grain of almost all descriptions, and seeds, of which it goes in daily pursuit about the fields, and which is preferred in a ripe state, and consumed as soon as obtained. But oats and rye do not agree with their constitution at all times, nor do the Rock Doves feed on these last-mentioned grains, if any others are within their reach. During the season of the year at which grain, seeds, peas, &c., are standing on the ground, the Rock Doves feed on them in large companies: but when these several cultivated productions are housed, the birds in question resort to seeds of wild plants that grow in woods, by road sides, and in the crevices of rocks. It has not come to our notice that the Rock Doves ever feed on worms, but small snail shells and maggots have been found in their stomachs, to which, from some cause or other, they had been compelled to resort when their usual food had become

scarce. These birds are in the habit of swallowing sand for the purpose of assisting their digestion, and where they inhabit any old brick building, it will be found that the lime with which the bricks are cemented together is pecked in holes, the Rock Dove being particularly fond of the small fragments of this mortar. During the time of year when food is plentiful, the Rock Doves fly at regular hours, and to very great distances from home to feed; but when the season of scarcity has set in, they are compelled to labour the whole of the day in search of whatever they can find. The Rock Dove drinks often, and is very particular to have pure water, which it sucks down by inserting its beak in the water, and swallowing a sufficient quantity at one draught. The bird is also fond of bathing itself, and equally so of rolling in, and sprinkling itself with dust, as common fowls are seen to do.

In its habits of nidification, the Rock Dove differs very materially from the stock dove, for the present species breeds in families in one and the same cave or grotto by the sea-side, whereas the stock dove never allows a neighbour to enter the hole in which its nest is placed. In the hole or cave where the Rock Dove builds, several nests are frequently found at small distances only from each other; and on the shelves of the rocks such numbers of these birds are perched together, that they are in danger of pushing each other off. It is reported that the Rock Dove breeds also in the holes of the Pyramids of Egypt; and they also sometimes make use of deserted burrows of rabbits for the same purpose, in situations where more suitable localities are not to be met with: this is recorded by Pennant to be the case on the coast of Suffolk.

In the spring of the year the Rock Dove looks out for a mate, whom he courts after the fashion before mentioned; and when the female bows assent, their loves seem

to take place; and the pair, when once united, remain constant to each other for life.

The nest of the Rock Dove is a very flat and loose structure, or heap of stalks and small sticks, on which the female deposits generally two white eggs, and sits from sixteen to eighteen days upon them, alternately with the male, before the young, which are ugly and blind, appear. Every night the male bird sits on the edge of the nest, or very near to it, for the purpose of guarding his mate from danger, and from the intrusion of her neighbours. The young birds leave the nest in about four weeks from the time of hatching, and are fed for some time by the parent birds with half-digested food out of their crops. Soon after the young birds can fly they learn to take care of themselves, and they keep up their piping note for a length of time after they have left the nest.

That pigeons have been domesticated for many ages is a well known fact, inasmuch as the Jews slaughtered great numbers of them in the Temple at Jerusalem, and feasted upon them. On the Mount of Olives was a spot called the Pigeon Rock, on which stood a pigeon-house, where upwards of five thousand birds were kept. The simile used by Isaiah, also, (lx. 8,) describing the return of the Israelites to their own land, appears to refer to domesticated pigeons. He says, "Who are these that fly as a cloud, and as the doves to their windows?"

The Rock Dove measures, from the tip of the beak to the extremity of the tail, from thirteen inches to thirteen inches and a half; the wing, from the carpus to the tip, nine inches and a half; and the tail, about four inches and a half. The beak, which is black, measures nine lines and a half; and, from being very much compressed about the middle, both in height and width, it causes the tip to appear swollen. About the root of the upper mandible is a fleshy substance, having the appearance of dough; and the nostril is a long oval slit.

The iris is a rich ruby-colour, the eyelids are reddish. The legs and feet are blood-red, and largely scaled in front of the tarsi and on the upper surface of the toes. The general colouring of the feathers is slate-blue, with the exception of the rump, which is white, and thus differs in that respect at all times from the stock dove. About the lower part of the neck and upper part of the breast the Rock Dove has a metallic lustre on the feathers, which varies from green to purple according to the light in which it is seen. The general slate colour is darkest about the head, neck, and breast, as also the upper tail coverts, and lightest on the wings. Two black bars, which stand about three quarters of an inch apart, are produced on the wings, by a black spot on each feather of the larger wing coverts, forming one band; and the other by the black on the shaft feathers of the tertials. The quill feathers are cinereous dusky. The tail feathers are slate coloured, with a broad dusky band across the tip; the basal half of the outer tail feather is white. The male and female are very much alike in colouring, but the latter is generally the smallest in size, and its colouring is less clear.

The egg figured 145 is that of the Rock Dove.

PLATE CXLVI.

TURTLE DOVE.

Columba turtur.

The Turtle Dove is very generally distributed over most parts of the known world, with the exception of the more northern countries, being found in Europe, Asia, Africa, the East Indies, China, Japan, and the islands in the South Seas. This bird, being migratory, is found only during mild weather in some of the northern countries; and being also a tender bird, its arrival takes place later than that of the other pigeons, and its departure for the south earlier. Their stay with us is generally from the latter end of April until the end of August.

The Turtle Dove differs from other pigeons in respect of its attachment to its mate, as the males arrive some time before the females, and they only pair for a season.

The chosen locality of the Turtle Dove is a woody country, without caring whether it is hilly or flat; but they appear to avoid very mountainous parts, probably from the absence there of well sheltered woods. Woods by the banks of rivers, interspersed with fields and meadows, are their favourite haunts, for both the seeds of the pine and those that are found in the fields equally tend to supply their wants. The Turtle Dove seems to be more nearly allied to the wood



pigeon than to either the rock or stock dove, for it frequents the haunts of the wood pigeon more generally than those of either of the others, only differing from them in inhabiting trees of smaller dimensions. At night it roosts on a strong branch of a tree among the thickest foliage.

The Turtle Dove is a very beautiful bird; its feathers are very smooth, and its movements exceedingly graceful; but we must differ in our description of its character from that which is generally received. It is usually supposed, and reported to be, loving, kind, and patient; such qualities are indeed frequently displayed towards their several mates, but towards other birds, when caged together, the Turtle Dove shows itself spiteful and quarrelsome in the extreme, pursuing and persecuting them incessantly; and so bold is it, that it will molest and harass in this manner birds much its superiors in size and strength, the wood pigeon more particularly.

When the Turtle Dove is perched on a branch of a tree, it sits with its body horizontally placed, as if walking on the ground; and when it is on the ground, it runs quickly and lightly, nodding its head at every step. Its flight is very quick and graceful. When the Turtle Dove first arrives, in the spring of the year, it is not shy, and may be easily shot; but after the pairing season the bird becomes wary, and towards autumn very shy and cautious, or, as has often been said, it becomes careful. Although these birds are bad neighbours to those of other species, they are considered sociable with their own, for they feed together in the fields, and during their autumnal migration they travel in companies. The call of the Turtle Dove is sufficiently well known, so as not to require any lengthened description; it sounds like the words *turr*, *turr*, more or less frequently repeated, according to circumstances, for the more excited the bird is, the oftener does he repeat his cry, and sometimes, as it were, in one breath.

It is a very easy matter to keep Turtle Doves in confinement; and they become very tame, and generally very careless, from which circumstance they not unfrequently come to an untimely end by being trodden to death.

The favourite food of the Turtle Dove is the seeds of the fir, and, like the wood pigeon, this bird frequents those woods in which a plentiful supply of this seed is to be found; and as it frequently happens that different woods produce a larger crop in one year than in others, so the Turtle Doves are more or less numerous in certain localities in certain years, according as their supplies of food are more or less abundant. The bird in question always seeks for the above mentioned seeds on the ground; and the reason for this proceeding probably is, that the beak of this pigeon not being very strong, nor suitable to open the unripe fir cones, it in consequence pursues its search on the ground, where the ripened and naturally opened cones, and their seeds, are to be found. The Turtle Dove also feeds on grain and seeds of all sorts of vegetables, whether cultivated or in a wild state, and seeds of many weeds that grow in the hedges, in ditches, or in fields; and on dissection of the stomach, small stones, shells, and sand are found, as well as portions of old mortar. The Turtle Dove breeds in woods of every variety of extent, and in nearly all sorts of trees; but one thing is very essential to its comfort, namely, a supply of fresh water in the shape of a natural spring, a river, or a brook, for the bird in question is very fond of bathing, and drinks frequently. In woods distant from clear water, or where there are only muddy swamps and bogs, the Turtle Dove never breeds.

Shortly after the arrival of the male Turtle Dove in the spring, when he has located himself, and made choice of a mate, the pair of birds look out for a tree wherein to place their nest, which is generally an oak or birch of

from thirty to forty feet high; and in this tree, at a distance of ten or twenty feet from the ground, the nest is placed on a small branch, well hidden amongst the foliage. The nest itself is composed of a handful of thin dried branches, taken off the trees near the one where the nest is situated, and heaped one upon another, in such a loose and shapeless manner, that the eggs may plainly be seen through it. About the middle of May the female deposits her two white eggs, which are hatched after sixteen or seventeen days' incubation. The young are at first covered with a yellow down, and, owing to the thickness of their beaks, have for some time a very unsightly appearance. They usually sit side by side in the nest, awaiting the arrival of their parents with food; and if the weather should be raw and cold, the female will keep them warm both night and day. They shift for themselves soon after leaving the nest, and the parents make arrangements for a second brood; and a third brood is frequently produced by the same birds during the summer.

The Turtle Dove is the smallest of our pigeons, and is consequently easily distinguished when on the wing from either of the foregoing species. In length this bird measures from twelve inches to twelve inches and a half; and the wings, from the carpus to the tip, seven inches and a quarter. The tail has a rounded appearance, owing to the outer feathers being half an inch shorter than the middle ones. The beak is small, weak, and straight, much compressed about the middle, and the tip is of a hard substance: it is nine lines in length, black in colour, reddish about the base, with a white dusky appearance about the nostrils. The inside of the beak and the tongue are flesh-red. The nostrils are narrow slits. The eyelids are lilac, and the region about them is naked, warty, and of a carmine-red, more coloured in the male than in the female, and not to be seen in the

young birds. The iris is a very bright red, being brightened in appearance by the colour approaching to golden-yellow as it joins the pupil. The young birds have the iris dusky until they are half a year old, when it becomes by degrees yellow and orange. The legs and feet are red, and scaled; the soles are raw umber coloured, and the claws dusky horn-colour. The top of the head, the back of the neck, the rump, the greater wing coverts, and part of the lesser wing-coverts against the ridge of the wings, are a blueish lilac, and this colour is also tinged or spread about the flanks, extending over the the upper tail coverts. The sides of the face are ochre yellow, beautifully blended in the lake colour that spreads over the breast. The back and middle tail feathers are burnt umber, with which colour the feathers of the upper tail coverts are edged. The secondaries and quill-feathers are dusky. Three of the tail feathers right and left of the middle feathers are black with white tips; and the outer feathers are white. On the sides of the neck there are some scaled black feathers with white tips, and these are surrounded by a beautiful tinge of cobalt blue.

The egg figured 146 is that of the Turtle Dove.





PLATE CXLVII.

PASSENGER PIGEON.

COLUMBA MIGRATORIA.

THE Passenger Pigeon has obtained a place in the British Fauna, in consequence of its having been found once in Britain ; and we are indebted to Dr. Fleming for the notice of this solitary instance of its appearance. According to this gentleman, in his "History of British Animals," a specimen was shot on the 31st of December, 1825, in the parish of Monymeal, in Fifeshire.

We are indebted to American ornithologists for the history of these birds ; and, as M. Temminck gives a general compilation of the different statements relating to them, we present our readers with the following translation of his account:—"When we consider the habits of this species, particularly in respect of its wandering propensities, and its existence in all the northern parts of America, even those nearest the north pole, it is not surprising that some stragglers should be found from time to time within the limits of Europe, and that they should have been captured in our northern countries, to which they have been driven by gales of wind. Several specimens are cited as having been taken in England, Norway, and Russia, the most recent of which took place in December, 1825, in Fifeshire, in Great Britain. Its range extends from the Gulf of Mexico over the

United States to Canada, and as far as Hudson's and Baffin's Bays. Its principal food consists of the nuts of the red beech. They live in companies, often of many thousands, their numbers covering a space of many miles in extent; and their place of repose is marked by the devastation they occasion amongst the trees. They breed in such large companies, that from sixty to a hundred nests are placed in a single tree. The nests are composed of small sticks, and appear to contain only a single white egg each."

Our plate is taken from a specimen in the Zoological Gardens, in the Regent's Park, London, and represents the male bird in adult plumage. All the upper parts, from the head to the tip of the tail, are blueish ash-coloured. The tips of the tertials and quill-feathers are dusky. Some of the feathers on the wing-coverts are marked with a black spot on the outer web of the feather. The bastard wing, and the greater coverts of the primaries, are black. The two middle tail feathers are black, and much elongated; the next are grey, and shorter as they approach the outer feathers, which are white on the outer webs and tips. The tail feathers being white at their base, with a black spot, produce a fine boundary to the white under tail coverts: the upper tail-coverts are very much lengthened. On the sides of the neck this pigeon has the usual markings or metallic scaled feathers common to its family, which joins the very lovely salmon colour of the throat, neck, sides, and breast; and this salmon colour decreases in intensity as it descends, and fades off in the white of the belly. The flanks have a tinge of grey. The beak is black; the iris fire coloured; and the legs are between lake and carmine red.

While finishing the history of the Passenger Pigeon, we learn that in the beginning of April, 1843, three birds of this species were seen in the woods of Littleton Common, in Middlesex. They appeared from their plumage

to be two of them males, and the other a female. When first seen they were flying at a great height; and coming down they brushed over the copse wood and alighted on the branch of a tree, where they were for some time distinctly visible to two observers, who being well acquainted with this species, had leisure to observe their lengthened and elegant tails, and the peculiar colour of their plumage. When they took wing, their voices resembled that of the Pheasant more than of the Pigeon tribe.



PLATE CXLVIII.

PHEASANT.

PHASIANUS COLCHICUS.

The Pheasant, although now a well-known bird all over Europe, was originally from the East, introduced through the luxury attendant upon civilization. It was brought first into the south of Europe by way of Greece, and afterwards followed the routes of the conquering Romans. The story goes, that the Argonauts met with these beautiful birds in great numbers along the banks of the river Phasis or Fasso, on their route to Colchis, from whence they fetched the golden fleece; from this circumstance are derived its generic and trivial names.

The true habitat of the Pheasant is the warmer part of Asia, from the borders of the Black Sea to China, and from Tartary to Persia and the East Indies.

The beautiful plumage and the fine flavour of its flesh have been the joint inducements for introducing the species wherever it has been practicable. The luxury of this game bird is very dearly bought, by the everlasting jealousy of its possessor, and the great inducement to the neighbours of all classes to get a shot at one of them whenever they stray beyond the limits of a preserve. We are not competent to give an opinion on the subject of game laws, but the Pheasant is so easily multiplied, and the bird so capable

of being all but domesticated, that, if fair play were given to them, and keepers were not constantly kept for the sole and sordid purpose of driving all straggling birds into cover, after having been kept by the industrious farmer until a few days before the shooting season commences, there would be more birds than necessary for every one, and the market might be supplied with them, without the daily strifes of poachers and keepers. We have been told that the greatest plunderers of game preserves are, in many cases, the keepers; and during our pursuits in studying British Birds in a natural state, we have obtained so much information respecting the nature and tricks of keepers, that it will only require leisure to write a volume on the subject, for the benefit of their employers. Many a new species of the smaller birds (summer visitants) will be added to the list of British Birds, as soon as some few gentlemen will permit ornithologists to go unmolested about their private preserves, and allow them to kill now and then a specimen; but while at every turn the naturalist meets with a keeper to warn him off, he will be expeeted to write about what he has not seen. Information is looked for in former works, and many are the blunders that are perpetuated without an end .

The Pheasant lives on the ground, among long grass, fern, underwood, and corn; it runs among them and hides itself very cleverly, in which thorn bushes and thistles aid it greatly. At night the Pheasant roosts in trees about ten to twenty feet from the ground: in some few instances a bird may be found on the ground, when strayed far from home, or in very windy weather. The flight of the Pheasant is heavy, but, owing to its strong wings, quick and accompanied by a considerable noise, particularly on its taking wing. When the Pheasant lowers itself, in flying from a tree to the ground, it steadies its wings and sails in the

manner of the partridge. When Pheasants are accustomed to be fed by keepers, they come eagerly to the call which announces to them the presence of their food; but by being always chased by dogs, and fired at, when they take wing, by sportsmen, the birds in question become shy and nervous. The smallest object in motion startles the hen Pheasant from the nest, but, when real danger is at hand, she remains as if lifeless upon it. A Pheasant sneaks or runs among long grass with a wonderful swiftness, and the distance it thereby keeps from a sportsman in pursuit of a bird thus circumstanced, after having been put up once, is very remarkable. A Pheasant is a helpless bird in some instances, as in flood time on the banks of rivers: it has been known that a bird of this species will rather run farther into the danger than try to get out of it, and awaits its fate with patient stupidity, without the least attempt to extricate itself.

Although the Pheasant thrives very well in Britain, yet, its natural and original climate being much warmer, sharp frost and snow of some continuance destroy many of them, as their food is hid by the snow, and the birds die from starvation. It is consequently very advisable that game-keepers should carefully feed the Pheasants, and keep them supplied with water, several times during each day in very frosty weather; and, if possible, construct warm hiding-places for these birds, for which purpose dry fern branches, laid on light sprigs of dry wood, form the most acceptable and natural covering, to which the birds are most likely to run for shelter; and, in order to entice them to such a place, a continued train of raisins will lead them to it as soon as anything. Where such precautions are not taken, the chances are much against their preservation in severe winters.

In the spring of the year the cock Pheasant struts

about in search of the hen birds, and now and then its hoarse crow or croak is heard, which resembles that of the half-grown domestic cock. The hen bird is very silent, and only utters the word *tshee* when startled on the wing. The young cock Pheasants crow in autumn early in the morning or late at night, which occasions the death of them very frequently, as they are sure to be found out by the experienced sportsman.

The favourite haunt of Pheasants is copse-wood, intermixed with large trees; and long thick grasses and ferns are very requisite for their shelter during the day. If such a copse-wood is surrounded by well-cultivated, rich land, the birds will thrive and multiply very fast. The food of the Pheasant consists in corn, seeds of almost all kinds, green vegetables, worms, insects, according to the season of the year, and berries of almost every sort, except those of the night-shade. The seeds of the sun-flower and buck-wheat are among the most prized; and, as before mentioned, raisins as well as grapes. If the Pheasant finds its way into a kitchen-garden, the hearts of the best cabbages, carrots, turnips, and potatoes, and in the summer season fruits of all kinds, are its prey; but, in consequence of the scratching of the Pheasant in search of many nice morsels, it is soon evident to the gardener, who visits his grounds, the knowledge of which leads inevitably to final results.

It is an easy matter to keep Pheasants in confinement and in good condition, provided the food given them is of a better and more varied kind than what common poultry are fed upon. The variety of food these birds feed on in a wild state renders it an easy matter to supply this want; but be it well understood, that whatever they are fed with must be of the best kind, or the birds will soon become poor and out of condition. The aviary or yard must also be kept dry, and be as well supplied with sand as with clean water.

About the end of March the cock Pheasant begins to call his mates together, by whom he is soon surrounded: the number of them varies from six to nine, and with them he wanders about in a certain district; and at night the hen birds roost in the same tree, or in a tree close by the cock. When the weather is pleasant and mild, the hen begins to lay as early as the month of May, and continues this for four, five, or six weeks. When the hen Pheasant wants to lay, she looks for a quiet place among long grasses, corn, clover, and bent, or by the side of a dry ditch, and in such a situation prefers a hollow spot, to which she carries some dry roots, stalks, and hay, but gives herself little trouble in constructing a nest, for she only lays them loosely one upon another, and then deposits generally every other day one egg, until she has laid from eight to twelve or fourteen: she sits from twenty-four to twenty-six days, and four-and-twenty hours on the young brood, after they are hatched, in order to dry them thoroughly. From this moment the young brood abandon the nest for ever, and are fed by their parent with ants' eggs. The young are so very tender, that they cannot bear even the moisture of a heavy dew on the ground; and rainy weather is, in this stage of their existence, frequently fatal to them. In about a fortnight the young begin to show their wings and tail from under the down; and when they are as big as quails, they follow the mother, fluttering along the surface of the ground on their little wings: when half grown they begin to roost on the same tree with the parent bird. When there is any danger approaching, the parent gives a slight call, and every bird instantly crouches flat on the ground, where it remains perfectly still until the danger is past. The male bird never takes any care about the hen, nest, eggs, or young brood, in which he resembles the common domesticated fowls. The young male Pheasants are the first to separate themselves from the family when they

are full grown, but the hens remain with the mother even till the spring of the next year, at which time all ties are dissolved.

The adult male Pheasant measures from the tip of the beak to the extremity of the tail about thirty-six inches, and the female twenty-six inches. Bill pale yellowish horn-colour; irides yellow; sides of the head bare, granulated, crimson, minutely speckled with black. This part is considerably brighter and more conspicuous in the spring. The splendid tints of green, blue, and violet metallic reflections cannot be described. The tail has eighteen feathers, the middle feathers the longest, and the outer ones the shortest. Legs and feet strongly scaled, and furnished with spurs about three-fourths of an inch long.

The entire colouring of the male bird is a rich chestnut brown, transversely barred with metallic black on the under parts, and finely pencilled and varied above with black and white, green, violet, and brown. The quills are reddish dusky, like those of partridges. The hen bird is very plainly attired in a light brown garb, with markings of dusky all over the plumage; the beak is dusky brown, and the iris dusky.

The egg figured 148 is that of the Pheasant.



PLATE CXLIX.

COCK OF THE WOOD.

TETRAO UROGALLUS.

The Cock of the Wood inhabits the northern parts of Europe and Asia, Norway, Sweden, and Russia, as far north as Siberia. Its favourite residence is in forests, but where trees become stunted by the cold climate this bird cannot exist. In the Highlands of Scotland, the Cock of the Wood used to be found in a natural state, and at present these birds have been re-introduced by one or two noblemen who have large estates, and where the timber covers part of some mountains. The wooded valleys afford the birds shelter and quiet.

In Prussia, Poland, Hungaria, many parts of Switzerland, and the Jura Mountains, it is pretty common: in France it occurs but seldom, and never in Holland.

The Cock of the Wood is a permanent resident in the places before named, but severe weather will induce it at times to travel southward, although not far, and only to the neighbouring forests. In the Hartz mountains the hen birds of the present species are frequently seen, although they are not known to breed there, and thus far they may be considered to migrate. Pine and fir trees, intermixed with large oaks and beech, must constitute the forest chosen by the Cock of the Wood; and water, either in the shape of springs

or bogs, and also meadows, are required: besides all this, very full and thick underwood for hiding-places must not be wanting. During the winter season, the Cock of the Wood passes most of its time in trees, where it has to look then principally for its food; but in the summer, the ground being plentifully supplied with all sorts of berries and other kinds of food, the bird passes the day at least among the brambles and heather, and returns at sunset to a strong branch of a tree for the purpose of roosting.

The manners of the Cock of the Wood are particularly dull and heavy, although the hen bird is much more active than the male bird. Its walk resembles that of the turkey, carrying the body horizontally, the tail drooping, and the head projecting forward with a long neck; but in case of need the bird can run fast enough.

The flight of the bird now before us is apparently performed with great exertion; the wings are moved or beaten very quickly, and the noise thereby occasioned is very loud. Great distances it does not travel on the wing by choice.

The Cock of the Wood is a very shy bird, and its sharp sight, as well as quick ear, aid it greatly for safety. The male bird is more shy than the female, and less frequently surprised. The female, if overtaken when with her young ones, follows the manner of the hen pheasant, in crouching flat to the ground with her brood, until danger comes too near, and then they all run out, and fly away together: under such circumstances the whole party fly straight away to some tree, where they perch on the lower branches, but do not allow men to approach them so near a second time.

The male bird is very unsociable, and, like the cock pheasant, roves about by himself until the spring of the year, when he goes in search of his mates for a few weeks, and returns again to his solitude, leaving the females to take care of their nests, eggs, and broods. The young cock birds

absent themselves very soon, but the hens remain with the parent bird until the next spring.

The call-note of the hen bird is best expressed by the word *cahc*, *cahc*, and serves equally to call the young birds, as well as to inform the male where the hens are stationed. The note of the male Cock of the Wood, that is heard in the spring of the year, during the pairing season, is so very extraordinary, that it can hardly be described, unless the reader translate a long history into imaginary action, and thus we will attempt to give an account of it. The first note is as if two walking-sticks are knocked together; and this blow is successively repeated with increased speed, until the bird finishes it with what is called the master stroke or blow: upon this follows immediately a noise as if sharpening a scythe, and ends finally in a long-drawn note of the last-mentioned description. While the bird produces this noise, it ruffles all the feathers of the head and neck, and fans out its tail, twirling it about; and becomes so agitated, that it evidently turns a deaf ear to all around; and sportsmen, who are acquainted with this, make their approach during this exhibition, and easily shoot the bird out of the tree.

Some adult male birds have laid aside all fear of men, and been known to attack them most courageously.

The food of the Capercailzie, or Cock of the Wood, consists in the long leaves of the fir and pine trees, buds of many forest trees, and many sorts of green herbs, berries, and insects; they are also fond of corn. Water is drunk frequently by this bird. The great difference that exists in the size, plumage, and habits of the male and female, exists also in regard of their food, for the female seems to require much more tender morsels than the male, and consequently her flesh is by far preferable to that of the male bird: young cocks, while they remain with the parent bird, and feed with her, are equally good for the table.

The old males, owing to the fibres, roots, and leaves of the pine and fir trees which they consume, obtain the full flavour of turpentine, and besides that their meat is coarse. The hen birds feed more on seeds and grain, insects and berries of all sorts.

About the beginning of May the hen bird seeks a place for the deposit of her eggs, among long grasses, thick bushes of brambles and heather: there she scratches a place, and carries to it a few leaves and grasses, and lays from eight to twelve eggs, on which she sits about four weeks with the greatest care and patience. If any danger approaches she will run off, but not to any great distance, and return as soon as practicable. As soon as the young brood are sufficiently dry, they run out of the nest after the mother, who takes the greatest care of them, and feeds them with ants' eggs and insects of various kinds.

The entire length of the Cock of the Wood is two feet nine inches; the beak is full two inches long, and very strong; the upper mandible projects considerably over the under, not only in length but width also, being thereby enabled to cut hard substances with it: its colour is pale yellowish. The iris is hazel. Over the eye is a red skin. The head and throat are dusky; the neck is ash-colour, finely marked with black; the breast is rich dark green; the rest of the under parts black, and white about the thighs and vent; the wing-coverts and scapulars dark brown, finely pencilled with black; greater quill-feathers dusky. The lower part of the back, rump, and upper tail-coverts ash-coloured, marked with black. The tail is black, and consists of eighteen feathers. The legs are covered with dusky brown loose feathers; claws dusky. The female differs very much in size and colouring: the head, neck, and back are barred with tawny, red, and black; the throat tawny

red ; breast paler, with white spots ; the belly barred with the same tawny, black, and white ; shoulders the same ; quills dusky ; the tail is rust colour, barred with black, and the tips of the feathers white.

The egg figured 149 is that of the Cock of the Wood, or Capercailzie.

PLATE CL.

BLACK GROUS.

TETRAO TETRIX.

The Black Grous is very generally distributed over the northern parts of Europe and Asia: in Europe it is met with as far north as Lapland and the north of Russia; is very numerous in the countries adjoining the Arctic Circle, in Scandinavia, Finland, and central Russia; but its numbers decrease as the countries approach the middle of Europe and the south. In Italy and France, Switzerland, the Jura Mountains, and Holland, it is by no means scarce; and in Great Britain it is found in many counties. The chief haunt of the Black Grous is on a light sandy soil, where the principal vegetation consists in heather and birch trees. In some countries this bird goes by the name of the birch hen, in consequence of its partiality to these trees. Large forests are by no means the habitation of the Black Grous, but uncultivated spots, where the birch tree flourishes, as well as the juniper bushes, and all such as bear berries, and heather of every kind; there must also be here and there an open spot of peat soil, covered with heath and moss only.

In some localities where the ground is entirely covered with the common heather (Erica vulgaris), and where no tree is met with in any shape, the Black Grous is found in great



plenty ; not only in flat or undulating countries, but high up in the mountains, where the growth of trees becomes stunted. In the north, the Black Grous frequents the valleys; and the nearer the countries where this bird is met with approach the south, the more it keeps to the higher parts of the mountains. This, as a matter of course, is in consequence of the nature of the vegetation, for the bird avoids thick woods or forests, as before mentioned.

The male of the Grous now before us is a very shy bird, and, owing to its sharp sight and ear, as well as its scent, it is approached but with great caution. In a natural state the male bird runs about on the ground with a proud spririt, carrying its head high, whereas the hen goes about crouching and modestly. The Black Grous runs very fast; and although its wings are rather short, it flies quickly, and, if necessary, to a considerable distance. That this bird knows how to run and hide itself among the stunted vegetation it frequents, is natural.

The hen bird may at times be approached when she is perched on the branch of a tree, although this only occurs in very severe weather.

The Black Grous is a sociable bird, for it is generally found in the company of several of its species. These birds live in families together; they share their food, their pleasures, and their dangers, except the adult male, who follows his pursuits in solitude except during the spring of the year. The male bird utters a piping noise when it takes wing, and the female whistles quite plainly, and when she intends to call her young brood together, she utters the word *dahc*, *dahc* in a nasal tone.

About the months of March, April, and May, the pairing season, the Black Grous daily visits a certain spot, apparently as much for the pleasure of a fight with his neighbours, as to associate with the hen birds; and during this time of

the year the bird in question shows a wonderful share of game and jealousy, for after some victories gained on his own ground, he goes in search of more opportunities of satisfying his passion for quarrelling.

The food of the Black Grous is much more choice and soft than that of the cock of the wood, and consequently the flesh of this bird is by far more tender and better flavoured; in fact, the Black Grous is the best flavoured game bird for the table. During the summer its food consists in vegetable matter and insects of most kinds, and in winter of the buds of trees, namely, of the beech, birch, hazel, willow, and poplar. In localities where juniper berries abound, they are preferred during the winter above all other food; and under these trees the Black Grous scratches the snow away in search of the young shoots of heath plants, &c. During the spring of the year, the young leaves of clover, fresh grasses, and the tips and branches of the milk weed (Euphorbia cyparissias) are eagerly consumed.

The Black Grous does not wash itself, but cleanses itself by means of sand.

When the hen bird is ready to lay her eggs, she looks out a quiet spot, and scratches a hole in the ground by the side of some low stalky bush or stump of a felled tree, and deposits her ten or twelve eggs almost on the bare ground, without making more of a nest than collecting the few stalks of dry grasses that lie within her reach when on the nest. The young brood are hatched in three weeks' time, and the day after their birth they run about, and follow the mother at first they feed on ants' eggs, and are kept warm and dry by the mother, until they are able to mount into trees for the purpose of roosting. This young family does not only remain together, but joins other young broods until the next spring.

The true sportsman very rarely shoots a hen of the

Black Grous, but only the cocks, and thus insures a good stock for the next season.

The entire length of the Black Grous is twenty-three inches.

The entire colouring of the male bird is black, with a strong metallic reflection of steel blue and purple. Over the eyes there is a naked scarlet-coloured skin. The secondary quill-feathers are tipped with white, which forms a white bar across the wings; under tail-coverts pure white. Legs covered with hair-like feathers, of a blackish grey; the beak black; the iris blue.

The hen bird has its feathers of a ferruginous yellow, barred and spotted with black; greater wing-coverts tipped with white; the breast is orange-brown, barred with black. Belly dusky brown, and barred with white and red. The tail barred in the same manner, but with the tips of the feathers dirty white.

The egg figured 150 is that of the Black Grous.



148



149



150



PLATE CLI.

RED GROUS.

TETRAO SCOTICUS.

The Red Grous is an inhabitant of the British Isles, and abounds chiefly on the extensive moors of Scotland, in the mountainous parts of Wales, and also in Ireland. Dry heathy moors suit the habits of this bird better than the boggy parts.

It is very remarkable that the Red Grous is not known to be found in any other part of the world than in the British Isles; and the best authority we have for saying and believing this to be a fact is, that none of the naturalists that have written on ornithology have ever made mention of its occurrence beyond the British Isles.

The only change of locality attributable to this species is, that it frequents the higher parts of the hills during the summer months, and the lower in winter; but does not extend its removal even so far as the plains.

The food of the Red Grous consists principally in the berries of moor plants and the tops of the fresh shoots of various heaths.

The habits of these birds are in many respects different from those of the black grous: for it is never seen to perch or roost in trees, and is monogamous in its habits.

The birds in question afford much amusement to sports-

men, as they lie very close in the first part of the season; but as the season advances, several broods join, and forming what is called a pack, they become very shy.

The numbers that are annually obtained by shooting and other means, without any apparent decrease in the ensuing year, is very remarkable, considering that they are the produce of this country alone.

Of all British game the Red Grous and Ptarmigan are the most harmless; for their exclusive haunts, the most desolate moors away from human habitations, supply them with food, shelter, and every necessary they require.

These birds pair very early in the spring, and the female deposits her eggs, from eight or nine to twelve in number, in a slightly constructed nest, if it can even be called a nest, among the heather. The young brood leave the nest soon after they are hatched, when the parent birds feed them with the produce of the ground where they begin to exist, namely, the wortle-berries and berries of other kinds that grow on the ground where these birds locate, besides also the tops of the heaths. The hen attends solely to the incubation; but, as soon as the young birds are hatched, the male joins her in providing for the family.

The Red Grous will live and is said to breed in confinement, although it does not repay for the trouble. The food these birds require under such circumstances is oats or barley, and a frequent supply of branches of heath, or berries of the kinds before mentioned, if such can be had.

This species measures sixteen inches in length. The female rather less, and the colouring of her plumage is not so full as that of the male bird; neither has she the red granulated skin above the eye.

The beak of the male bird is black, and half hidden by numerous small feathers that surround its base. Irides chesnut-colour. Orbits of the eyes white; also a small

spot of white originates at the base of the lower mandible, and ends in a thread along the lower part of the cheek: over the eyes is a naked, fringed, bright red skin. The head, neck, breast, and belly are dark chesnut-brown, now and then marked with fine waving black lines, and in many instances spotted with white; back and wing-coverts red-brown of a rich depth, spotted with black. The tail-feathers are black, except the four middle feathers, which are reddish-brown, transversely barred with black lines. The primary quills are dusky. The legs and toes thickly covered with dull white feathers; claws greyish horn-colour.

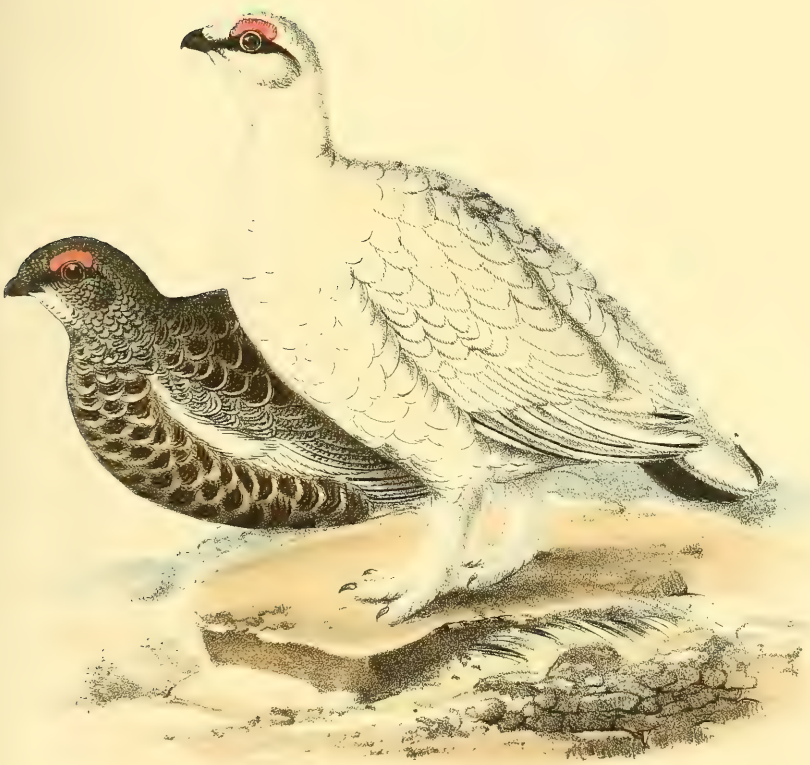
The egg figured 151 is that of the Red Grous.

PLATE CLII.

PTARMIGAN.

TETRAO LOGAPUS.

The Ptarmigan is found in the northern parts of Europe, Asia, and America; and in some countries in very great numbers. In Norway, Sweden, and Lapland, it is very plentiful. In Scotland it frequents chiefly the most mountainous regions: it inhabits the Alps of central Europe, Switzerland, Savoy, and those of the south of Germany; and every where in plenty. Although this bird is widely distributed, it nevertheless resides in a very equal temperature, inasmuch as it does not leave even during the summer months the snowy regions altogether. When the severe frosts and unceasing gales set in among the loftiest mountains, the Ptarmigan descends only to more sheltered parts, but never lower into the valleys than where the snow remains upon the ground. In Norway, and about Drontheim, the numbers of Ptarmigans that arrive from the polar circle are incredible, when the depth of the snow prevents the birds from looking for their food, and when the frost becomes severe enough to endanger their lives. In every respect the Ptarmigan is a snow bird, and the German name of the Schneehuhn ("Snow-Chick") is very appropriate. It is remarkable, that the Ptarmigan avoids the rays of the sun by seeking the shady parts of the mountains on a fine bright day. For what reason



or inducement these birds prefer the most sterile situations, is not easily explained, but they are most numerous on the barren snow-clad rocks high up in the mountains, where they are continually exposed to gusts so frequent and terrible, that they are obliged to seek refuge and shelter between the clefts and fissures of the locality. During the night the Ptarmigan resorts to the shelter afforded by a stone or heath plant, or by the snow itself, in which it buries itself up to the neck. In this latter situation these birds are not unfrequently snowed in, and have great difficulty in keeping a small loop-hole. The huntsmen of the Alps profess to know, that, when these birds are snowed in and become actually covered over by the snow, that they remain thus at times for a whole week, when hunger prompts them to the exertion of extricating themselves; and not unfrequently several birds are found dead in such situations.

The Ptarmigan is a very pleasing bird in its winter garb, owing to its clean smooth feathering and well-proportioned shape; but in summer plumage it is so much pied and spotted, that it is very difficult to say what colour predominates in its feathering.

The general appearance of the Ptarmigan, when unconscious of being observed, is very unobtrusive, walking about with a round back and drooping tail; but if the bird is startled, it struts about with an air of dignity. The bird in question can run very fast, and its flight resembles that of the partridge. The formation of its short wings greatly contributes to produce quick flight, which is accompanied by a vibratory noise: it never flies high, nor, except during migration, to any great distance, and when it alights, it invariably runs on a little way upon the ground or snow, where the loose feathering of the feet prevents it from leaving distinct footmarks. Its spoon-shaped nails are well adapted for scratching the ground or digging in the snow.

It is reported that the male Ptarmigan behaves very remarkably during the time when the female sits on her eggs, and that under these circumstances he will sit immovable in one spot for hours together, even on the approach of danger; and when stationed thus near the nest, it has been known to remain there, looking around on the landscape quite unconcerned, while persons have thrown stones at it. As soon as the young are hatched, both parents become alert and busy, and towards autumn more careful, and finally very shy in the winter. If the weather is fine and sunny in winter, they are all again slow to move, at which time the sportsman gets a chance of approaching near enough to shoot them: the bright light of a fine day may perhaps dim their sight.

During the breeding season the Ptarmigans live in pairs, and afterwards with their family; and later in the year, about October, they congregate in large flocks, and thus migrate.

About the call-note of the Ptarmigan so much has been recorded, that it is very difficult to decide which account to give credit to, but it appears most reasonable to believe that the usual call resembles that of the common domesticated hen.

The Ptarmigan can be kept in confinement, but hardly for any length of time.

The Ptarmigan feeds on the natural produce of the uncultivated rocky mountains and moors it inhabits, namely, the buds, leaves, blossoms, berries, and seeds of plants and stunted shrubs, as those of the bilberry (Vaccinium myrtillus), cranberry (V. oxycoccus), black crake-berry (Empetrum nigrum), the heaths (Erica vulgaris, E. cærulea, &c.), the dwarf birch (Betula nana), and many other mountain plants that grow from among the fissures of rocks. In these apparently scantily supplied regions, the Ptarmigan finds a sufficiency of food among the clefts and fissures while the

entire surface is covered with snow, and Providence furnishes these birds with well-filled storehouses during the time of dearth.

The young birds are fed also at first with insects, which the parent birds scratch for among the loose earth and lichens. In the crops of the Ptarmigan sand and small stones are frequently discovered. Snow seems a cooling requisite to the birds in question, for they go in search of it during the summer months, in lieu of water, to allay their thirst: this may justly be considered as one great reason why these birds do not descend into the valleys beyond the snowy regions.

The Ptarmigan, which is apparently the only living creature that chooses the dreary and barren locality it does for the employment of love-making, may be seen perched on the edge of some awful abyss, early in the spring, uttering its unmelodious call-note; and as soon as the bird has found a mate, the pair look for a convenient spot where to form the nest, and where the female may deposit her eggs: each pair of Ptarmigans keep to their own chosen spot, and allow no intrusion from any neighbours.

The place chosen for a nest is generally a slight hollow behind a stone, rock, or heath plant: sometimes a deposit of lichens and bents forms the lining of the hollow or nest, and at other times these are dispensed with. The number of eggs that are found in one nest varies from seven to twelve. In the month of June the female begins to lay, and by the beginning of July commences sitting, which lasts for three weeks; she sits very close, and the male bird remains during that time very near to the nest in the most dejected position, perched on a stone or shelf of the rock. If any danger approaches too near to the hen bird, the male flies off, and the female follows him quietly. The male bird enters into none of the breeding concerns, for the female brings up her young brood even after the male has been captured

or killed, which sufficiently proves that he is not wanted; and in cold and stormy weather she takes the nestlings under her wings for protection. If any man has caught one of the young brood, the fond mother has been known to go up to him, as if reclaiming her own. When danger approaches suddenly, the young brood disperse in all directions, and each remains perfectly still in its chosen place behind a stone or bush, &c., until the mother recalls them all together again. When the young birds have gained their full size and gone through the autumn months, the male parent joins the family; and by this time, while they are all seeking a milder atmosphere, several families flock together, and remain so until the ensuing spring.

The male Ptarmigan is about fifteen inches long; the female somewhat less. The winter plumage of both male and female is pure white, with the exception of a black streak from the base of the beak through the eye, the fourteen black tail-feathers, which set off to greater advantage the four white middle feathers, and the black shafts of the quill-feathers of the wing. Over the eye the bird has a naked fringed bright red skin, in the same fashion as the red grous. The beak is black; the iris dusky.

In summer the Ptarmigan is very differently coloured, and the following is the description of the male bird at that season:—The upper parts are pale cinereous brown, minutely spotted and barred with dusky; but the markings on the head and neck are broader and mixed with white; the under parts and quills are white as in winter; the central tail-feathers are ash-coloured.

In our plate the white specimen represents the adult male in perfect winter plumage, and the dark figure the same in its summer dress.

The egg figured 152 is that of the Ptarmigan.

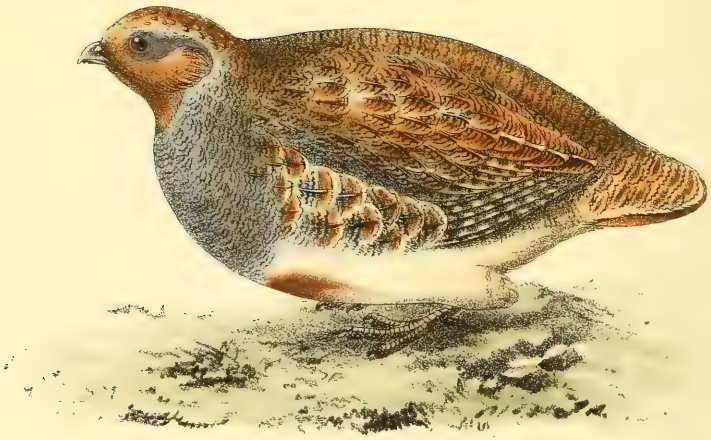


PLATE CLIII.

PARTRIDGE.

TETRAO PERDIX.

The Partridge is so well-known that nothing new can be said on the subject; but in many respects it has more claim upon our attention than almost any other bird. This bird feeds so many men of all classes and in such different ways, that it remains a matter of doubt whether the plentiful and well-flavoured stock of them is a blessing or not! In the first place, the Partridge now before us affords great pleasure to sportsmen, and is indeed much better flavoured than the same species abroad, and the great number of Partridges in Britain proves that the climate and soil suit them. The flesh of the Partridge supplies the table of the epicure with a delicious morsel, and the pursuit of it is as much relished by the sportsman: then follows feeding the poachers, feeding the gentlemen of the law, feeding newspapers with matter for their lists of accidents and offences; and, lastly, though not least, feeding the flame of contention between large land-owners and their tenants. A list *ad infinitum* might be made out, of feeding game-keepers, dog-stealers, hawks, stoats, and a great number of those lower animals; but suffice it to say, that there is hardly a topic more generally digested than that of the Partridge throughout the year.

The Partridge inhabits most temperate climates, and

is consequently found throughout central Europe; and in Asia from the south of Siberia to Persia, where it is found in great numbers. In Great Britain the Partridge is indigenous, and frequents chiefly, or rather in greater numbers, agricultural districts. Some continental ornithologists affirm that Partridges migrate, and state that these birds travel in flocks of from fifty to several hundred; and the manner in which they migrate is rather extraordinary; they both run and fly, or flutter along the surface of the ground in such a hurried manner, that the hindermost continually tumble over those in advance. Although there is no mention of a different species, those birds that are reported to arrive southward about October and November, are considered to be not quite so large as our Partridge, and their legs are rather browner in the colouring. The inducement for migrating must be, of course, in order to escape the severity of the winter, or from scarcity of food in the native districts of these travellers.

The Partridge frequents, by choice, agricultural districts, as we have already mentioned, for there it finds choice and plenty of food; it is, however, necessary to have low bushes, brambles, or hedgerows, to which the bird can run for shelter and concealment. It is also more plentiful in undulating countries, than where flat meadows and pasture-land extend to a great distance. In woods and forests the Partridge does not reside.

In the spring of the year Partridges frequent ploughed fields, clover-fields, &c., in single pairs, making themselves thoroughly acquainted with the locality in which they intend to breed. During the summer they remain hidden among the standing corn. In autumn these birds are found in corn-fields, stubble, or grass lands, among turnips or potatoes, and along embankments of dry ditches, in hedges, osier-beds, and heathy commons. During the winter these persecuted birds

are not only pursued by men and dogs, but the snow forces them to seek food and shelter in or near farms, which increases their danger. Partridges never pass the night in woods, but, as soon as the sun is set, they fly to the fields, and after one or two short moves, during which time they utter their call-note, *chisick*, *chisick*, they unite, and scratching a hollow place, the birds squat close together with their tails to the centre, and remain thus for the night. Early in the morning, when daylight appears, the whole family leave their roosting-place and run about, when the parent birds call the young ones together, and fly to a short distance; this is repeated once or twice, when they all run about a little with extended necks, until the sun has risen, when they begin to feed.

The general appearance of the Partridge, in a natural state, is exceedingly graceful, and very different from most land birds. During its occupation of seeking its food, it goes about crouching with a round back: when it notices any sound that arrests its attention, it stands up with the neck extended, looking around; and until it perceives danger, it will strut about in this manner, and on the nearer approach of danger, it runs with great swiftness, and finally flies away. Frequently when a sportsman comes upon a Partridge or a covey of them, they run for a hiding-place, and if none is at hand, they one and all lay themselves quite flat to the ground, and remain there until the danger is past, or else take wing and try to save themselves; but, at all events, it is very wonderful how these birds manage to lie so close to the ground, that the best-sighted sportsman can seldom see them till they think fit to get up.

The Partridge, when on the ground, mostly keeps its wings covered by the beautifully pencilled breast and side feathers, and its tail drooping and partly spread. The flight of the Partridge is remarkably strong and quick,

but its short, blunt wings are not adapted for keeping this plump bird for any length of time in the air. The strong muscles of its wings allow it not only to strike the air rapidly on taking flight, but are quite equal to the freeing itself from the grasp of a hand that attempts to take the bird alive, and this escape is more frequently accomplished by the bird backing itself unawares. After the Partridge has escaped from its pursuers, it continues and ends its flight in a sailing manner, and alights at last sidelong. We have never seen or heard of Partridges perching on trees or on buildings, but we had, not long ago, an opportunity of seeing one of them mount on the very top of an elm, after having been wounded in the head. We have lately observed, among other new occurrences, that Partridges cross the line of a railroad not only in sight and hearing of a train in motion, but that these birds very frequently fly over a train of carriages and alight close to the very spot, so that one may see them run on the ground before the train is past. It is probable that Partridges become as much accustomed to railroad noises as horses and other animals do. The wires which constitute the telegraphic communication on some lines of railways are the cause of the death of many birds, particularly Partridges, which fly against the wires during dark mornings, and are found dead on the lines by the workmen.

The strong claws of the Partridge serve it chiefly in scratching the ground for food, and clearing a place for roosting, and besides as weapons of offence among the males, when any occasion offers during the pairing season.

Partridges used not to be shy, and are not so now in places where they are not continually fired at and pursued by sportsmen. Where they are allowed to go about unmolested, it is very amusing to see them leading as sociable a life as possible, feeding twice a day, and dusting themselves very

frequently, particularly the young birds of the year, which are very much infested with vermin.

The Partridge offers a lesson to mankind, although its character is not generally further contemplated than by the anticipation of the pleasure of killing it, or feasting upon its flesh. Beginning by the pairing season, the Partridge, after having chosen its mate, remains attached to her for life: when they have a young brood, the male bird keeps a continual watch for the safety of a family that very rarely indeed fall out among themselves, while the fond mother leads them to their food; and this family, which is called a covey, spend all their time in the most sociable manner, until the next spring separates them in pairs; and if a single bird happens, by the luckless chance of natural consequences, to be left a lonely survivor of a covey, the family spoken of gladly takes the wanderer in, and allows him to enjoy their company and the benefit of warmth during cold nights, by sharing their bed with him. It is not very practicable to keep Partridges in confinement, for their nature requires food of many descriptions, according to the season, and a single given piece of ground cannot produce them. Gamekeepers sometimes set common hens on Partridges' eggs for the stocking of preserves; but, considering that the eggs must first be stolen to enable them to do so, the honesty of the proceeding is somewhat questionable.

The favourite food of the Partridge consists of insects, although vegetable matter, seeds, and grain are also eaten by them in their proper season; ants and their larvæ are devoured by this bird whenever it can get them, also every kind of small beetles, grasshoppers, earwigs, flies, spiders, &c., and the larvæ of all of them. Particularly fond are Partridges of the maggots that are found in turnips, late in the autumn and winter. During the time when the corn is standing, the Partridge does not feed upon the

corn, but upon the seeds of many weeds that grow up with it, and thus far the bird in question does more good than harm; it is, besides, a certainty, that the good which it does by scratching the ground and moving the surface in search of insects, is by far greater than farmers will allow, or may be aware of. The middle of the day is the principal feeding-time of the Partridge; after which, the family lie or squat down to rest, or dust themselves, according to the state of the weather. When the corn has been sown, the Partridge does harm, by picking up the uncovered grains, and also scratching up those that lie near the surface, as well as eating the young green shoots that may have come up. During sharp winters, the dearth of food becomes very serious to the Partridge, particularly when the snow remains long upon the ground, and is hardened by the frost sufficiently to prevent our bird from getting at green food of any sort. Water is apparently of little value to the Partridge, for it hardly ever is found near that element; and it seems as if the dew-drops on the turnips or other green leaves are sufficient to satisfy its thirst.

The Partridge deposits her eggs invariably upon the ground, in many different situations, namely, in corn-fields, among long grass, clover, or peas, on the banks of dry ditches, at the foot of some tree or bush, or near the post of a gate overgrown with weeds, &c. The nest itself is no more than a hollow scratched in the ground, in which a few grasses or stalks are accumulated, upon which the eggs are deposited, the number of which depends on the age of the hen bird, and may vary thus from ten to fifteen, or even more. They have only one brood in the year, unless this is destroyed by some accident, in which case a second attempt is made, and even repeated for a third time, but the number of eggs becomes less, and the young broods are not so strong and hardy.

After three weeks sitting upon the eggs, the anxious mother

has the pleasure of seeing the young birds creep out of the shell: the young run about as soon as they are hatched. While the hen Partridge sits on the eggs, the male bird keeps continually watching for her safety; and when she goes twice a day to feed, he always accompanies her. If the male bird did not give its mate notice of danger, whether of the approach of man or beast, the hen would hardly ever see her young brood run about, for unless she takes flight it is impossible for her to contend against stoats, pole-cats, and the like, and numberless enemies in the shape of bird-nesters, for she sits so very close on the eggs towards the end of her time, that any one might take her.

We have for some time been induced to believe that sporting dogs, and in particular pointers, had no nose, as it is called, during the breeding time of game birds; but, on further consideration and on observations lately made, we have been induced to believe that birds while sitting on eggs do either not give any scent, or such as misleads dogs and vermin. Several times have we gone across a field and common, accompanied by two excellent dogs, where to our knowledge hen Partridges and pheasants were sitting on eggs, but without the dogs taking the least notice of the nest, although they always found the male birds. The year before last, there being several broods of land-rails on Chertsey Mead, we went with a pointer dog to find the nests, but without success, although we found the birds. There was also a Partridge sitting, of which no notice was taken by them.

When the grass was nearly mown, a small patch or two remained standing, among which was a pair of stoats with a young family, also three broods of land-rails: the stoats pursued the young land-rails and destroyed some. All this time the Partridge sat on her eggs without being visited by the stoats; but no sooner did the young Partridges come into the world, than we saw the stoats make straight for the spot where the birds were.

After a short interval we went with one of the pointers to look for the land-rails, and the dog put up ten land-rails within a very short time, certainly less than half an hour, and only one bird at a time. Thus much for the credit of the dog: further, also, it is necessary to say, that the Partridges and pheasants were found by the same pointer dog in September and October, as they were wanted, in the before-mentioned field and common.

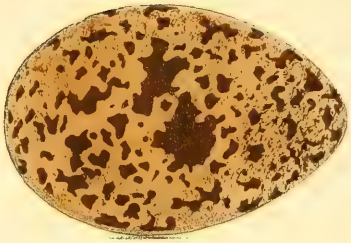
Spaniel dogs should never be allowed to range about preserves while birds are sitting, for fear of disturbing them unnecessarily.

When young Partridges run about before they are fully able to fly, they are exposed to many dangers, namely, from buzzards, carrion crows, and hawks; many also fall a prey to cats.

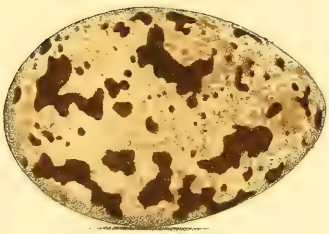
The Partridge measures about thirteen inches in length. The beak is bluish horn-colour; the iris a warm dusky. The general colouring of its plumage is a brown ochre, spotted and pencilled over with black. The back and wing-coverts are streaked with chesnut; forehead and sides of the face clean and rich brown ochre; above, below, and behind the eye, the bird has a granulated red skin. On the breast the male has a deep chesnut-coloured mark, shaped like a horse-shoe; over the eyes, beginning on the forehead, runs a pearl grey narrow band, extending down the ear-coverts, spreading over the neck, throat, and upper part of the breast, which is further continued to the side feathers, that mostly cover the wings; and on these side feathers are several beautiful broad bay-coloured dashes, as represented in our plate.

Our plate represents a mature male bird; the female only differs in having less clear colouring of the feather, and little of the red skin about the eyes.

The egg figured 153 is that of the Partridge.



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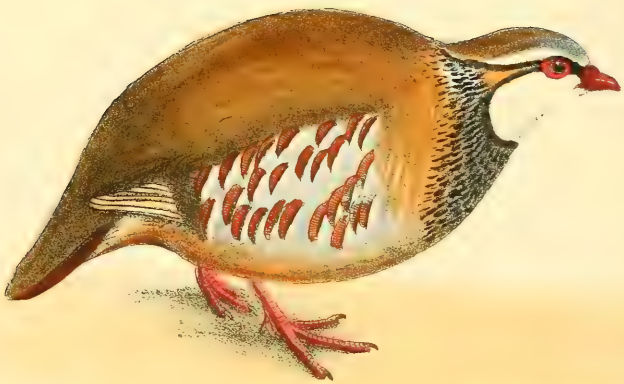


PLATE CLIV.

RED-LEGGED PARTRIDGE.

PERDIX RUFA.

The Red-legged Partridge, which is also called the French Partridge and Guernsey Partridge, has been introduced into this country by some noblemen, who have thereby added to the number of game birds.

Its most successful introduction into this country was made by the Marquis of Hertford, about the year 1770; and a friend of the author was some years since informed, by an old man, that he remembered the time of their introduction in that nobleman's estates at Sudbourn, in Suffolk, and his great anxiety for their preservation; and stated, that, when the first nest of eggs was found, the Marquis had it watched night and day. Since this period Suffolk has never been without these birds, and in some localities they have almost superseded the common or native species; a subject of regret to sportsmen, as these birds, through their unwillingness to take wing, spoil the dogs: neither is their flesh considered so delicate or well flavoured.

This beautiful bird inhabits the southern parts of Europe; but, whether from partiality to some particular kind of food, from influences of temperature, or from combinations of other causes, it does not thrive equally well in all places; occurring plentifully in some parts, and not in others. In Asia and Africa it is well known and plentiful.

In a wild state the Red-legged Partridge is chiefly found in hilly countries, where bushes and copsewood abound, to which it seems very partial. In France, about the Saone and the Loire, both kinds, namely, the grey or common English Partridge, and the Red-legged, may be seen in the same district, although they never unite in one covey.

The habits of the Red-legged Partridge are very much like those of our grey Partridge: it runs on the ground in the same manner, and is quite as strong on the wing; it also lives very sociably with its mate and family, feeds almost the same, and scratches the ground alike for food. It is not quite so terrestrial in its habits, being occasionally seen to take refuge in a tree. It is also more noisy; and when a covey of them is fired at, the birds split or disperse more readily than our Partridge; consequently affording better sport, if the sportsman is provided with a good dog.

The call-note of the Red-legged Partridge sounds somewhat like *cockileek*, and in the spring of the year it is frequently uttered by the male bird. The birds in question may be kept in confinement, but they will not thrive for any length of time.

The food of the Red-legged Partridge consists chiefly in insects of many descriptions, beetles, grasshoppers, ants and their eggs, flies, spiders, grubs, maggots, and small snails; they also feed on corn, wheat by preference, and the young shoots of clover, and many other vegetable productions.

In the spring of the year the male bird looks out for its mate, and, after many a fight with his antagonists, he retires with his partner to some chosen spot, where the hen scratches a hollow place in the ground among the standing corn, or near a bush, and there she deposits her fourteen to eighteen eggs. The eggs are much larger than those of the grey Partridge, and differ also widely in their colouring, as will be seen in our plate.

The male bird takes no part in the incubation, and leaves the care of the young brood entirely to the hen, until they are half-grown, when he returns to them, and remains with them until the next spring.

The bird now before us is by far more beautiful than the foregoing species; it is also a larger bird, measuring three-quarters of an inch more in length. The throat and cheeks are of a pure white, encircled all round with a perfect black band: on the breast and sides of the neck this band is surrounded by a gorget of black spots. Over the eyes the bird has a white streak; the top of the head and all the upper parts, as well as the upper part of the breast, are of a cinereous rufous; the lower part of the breast and belly are greyish; lower part of the belly and vent are of a clear rufous colour; the cinereous side and flank feathers are barred with white, black, and rufous. The beak, eyes, orbits, and legs are of a beautiful crimson red.

The egg figured 154 is that of the Red-legged Partridge.

PLATE CLV.

BARBARY PARTRIDGE.

PERDIX PETROSA.

We are enabled to figure the Barbary Partridge through the kindness of Mr. Goatley, of Chipping Norton, Oxfordshire, who in the most obliging manner forwarded the only known British killed specimen to us for the purpose.

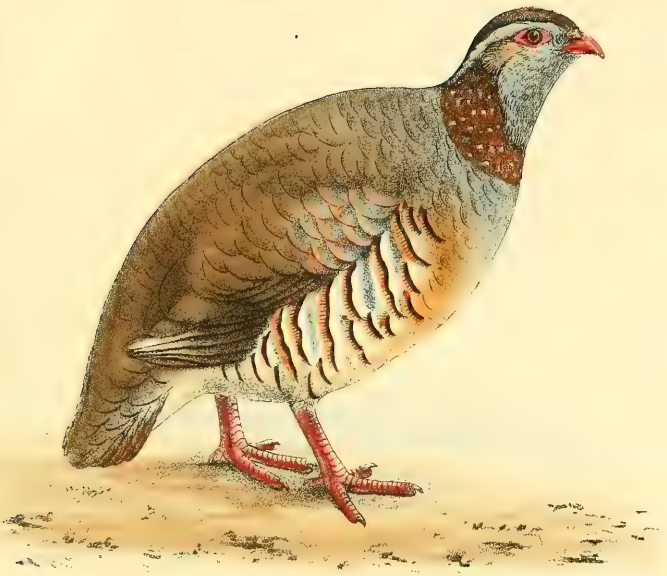
The specimen here represented, a female, was shot in Suffolk about four years ago, and, although this locality is beyond the supposed range of this southern species, we see no reason to doubt its having been an accidental straggler in a wild state.

This species being hitherto unknown in this country, we must necessarily look, for the history of its habits and manners, to the accounts of persons who have gained their information in countries where the bird is at home, and we have the following particulars from very good authority.

The Barbary Partridge is found in most of the northern parts of Africa, in Malta, Corsica, Sicily, Calabria, and in the mountainous parts of Spain.

The food of this bird consists in seeds and insects, which it finds on the ground.

The favourite haunt of the Barbary Partridge is among low bushes, in unfrequented mountain districts, where it also breeds on the ground in the manner of the Red-legged



Partridge. The eggs, which are generally fourteen or fifteen in number, are of a dirty yellow colour, spotted all over with oil green; but we are not at present so fortunate as to possess an egg of this bird to figure from.

The specimen from which our drawing is made measures thirteen inches in length; the wing, from the carpus to the tip, nearly six inches.

The colouring of the plumage is as follows:—The top of the head, from the base of the upper mandible to the back of the neck, burnt umber: a band of pale ash-colour runs alongside of it, but is divided from the brown feathers by a narrow black edge; the chin, throat, and sides of the face are of the same pale ash-colour. The ear-coverts are wood-brown, and join the gorget of rich chestnut-colour, which is studded over with triangular white spots. The upper part of the breast and tippet are a mixture of olivaceous brown and ash-colour. The back, rump, tail, upper wing-coverts, tertials, and upper tail-coverts, are a mixture of wood-brown and ash-colour; the middle tail-feathers and basal half of the quill-feathers are pencilled with dusky transverse markings; the rounded feathers of the wing-coverts are slate-coloured, broadly edged with chestnut. Lower part of the breast brown ochre, belly and vent buff-coloured. The sides and flanks are ornamented with broad bars of white, black, and cinnamon-brown. Tail, rich chestnut-brown. Beak, orbits, and legs are said to be bright red; iris, hazel.

PLATE CLVI.

VIRGINIAN PARTRIDGE.

PERDIX VIRGINIANA.

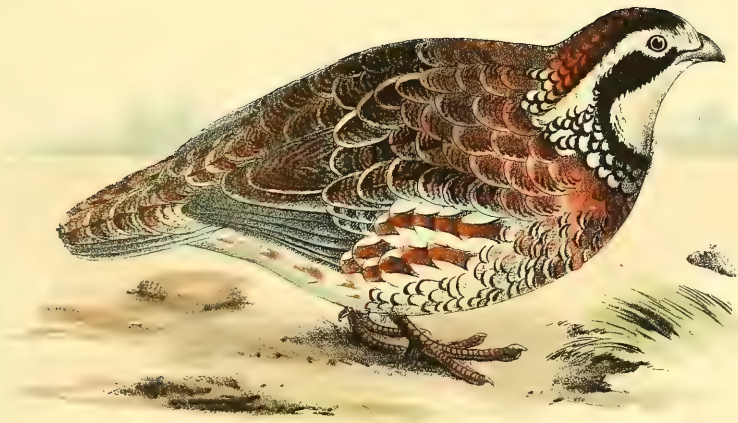
The Virginian Partridge having lately been introduced into Great Britain, with a view to its naturalisation, and spreading over the ground when opportunity offers, has as much right to be numbered among the list of British birds as the pheasant has.

The name this bird bears sufficiently indicates to what quarter of the globe we must look for its habitat, namely, North America, and particularly Virginia, where they occur in great numbers.

The best information respecting the habits of this bird we have consequently from American ornithologists: and with what we have ourselves observed of their manners, there appears great resemblance between them and the common Partridge of our isles, although the present species at times perches on the branches of trees of low growth, and builds a nest for the deposit of its eggs, differing in these acts from the habits of our native bird.

The food of the Virginian Partridge consists in grain and insects; and it is not improbable that the want of its favourite food, Indian corn, is in a great measure the reason why the bird does not thrive well in Europe.

Our plate was taken from specimens in the Zoological



Gardens in the Regent's Park, as well as the representation of the egg, which was produced there by a pair in captivity.

In several instances the species here described has very recently been introduced more extensively in preserves of game, and, we have reason to believe, with more success than formerly, for several stragglers have been killed in divers places in Surrey and elsewhere, and one which was shewn to us proved to be a young male of the year. The sportsman who killed this specimen assured us that his pointer stood at the bird as staunch as if he had come upon a common Partridge, and the bird lay as close to the dog as could be wished.

The Virginian Partridge frequents the borders of woods in preference to open country, and generally runs among low bushes and long herbage, unless when, in search of grain, it leaves such shelter, and spreads into cultivated grounds.

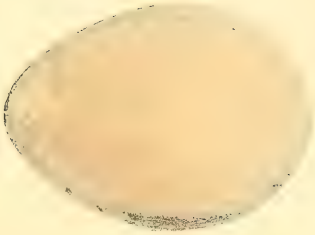
The Virginian Partridge differs materially from the former species, in building a nest for the reception of the eggs, which is said to be in shape resembling that of the willow wren, with a hood: the eggs are ten or twelve in number. The male bird has little or nothing to do with the business of incubation, but joins the hen and young family as soon as they run about, and all remain together until the next spring, when the birds pair and separate.

The male bird measures nine inches in length. The beak is blueish horn-colour, the iris dusky, and the legs and toes are transparent reddish brown; claws dusky. Chin and throat, forehead, temples, the sides of the head, and upper part of the breast, white. From the base of the upper mandible begins a black band, which continues below the eyes, and forms a collar below the throat. The top of the head is rich red brown, inclosed on both sides with black.

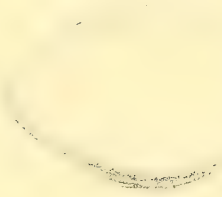
The upper part of the back and sides of the neck, red brown. Back, wing-coverts, and tertials, burnt sienna, pencilled all over with black; rump and upper tail-coverts, olivaceous brown and sienna, and also pencilled with black. Most of the feathers on the upper parts of this bird are edged with blueish ash-colour and straw yellow; the under parts are white and yellowish white; the feathers of the breast and belly, edged with black. The side and flank feathers are beautifully marked in the centre by rich chestnut brown, bordered with black and white; tail-feathers are blueish ash-coloured.

The female differs chiefly in the head being of a uniform wood-brown, with dusky edges to the feathers on the top of the head; the feathers of the other parts are less distinctly marked, and the colouring is less brilliant.

The egg figured 156 is that of the Virginian Partridge.



154



156



PLATE CLVII.

QUAIL.

PERDIX COTURNIX.

The Quail is not only a well known bird in Britain as a summer visitant, but throughout the mild parts of Europe and Asia it is met with, as also in the north of Africa; and in some islands of the Mediterranean these birds are so very plentiful, that the name of Quail Islands has been bestowed on them.

Mr. H. M. Drummond, in his "Catalogue of Birds found in Corfu," published in the "Magazine of Natural History," also speaks of the numbers of this species that visit that island in the course of their migration, in the following words:—"The first of these birds make their appearance about the 27th of March; but the grand flight, which depends much upon the wind, (which is required to be from the southward,) does not arrive till the 10th or 15th of April, when they sometimes appear in such numbers, especially in the island of Faro, that instances have not been wanting of fifty or sixty couple being killed by a single gun in two or three hours. Many of them are so tired, that, being unable to reach the land, they fall into the sea and are instantly devoured by the gulls (Larus argentatus) and the ravens, which hover about on these occasions in great numbers. They return again about the 15th of

August, but many remain to breed, and a few even remain all the winter."

Although the Quail is not strong on the wing, the bulk or greater number of them are obliged to cross the sea, in order to escape the severity of our winters in Europe, and many of those perish at sea; they are frequently captured when alighting on the deck of a vessel for the purpose of recruiting their strength; and it is a known fact, which frequently occurs on the coast of Provence, that many thousands arrive so worn out from fatigue in the course of one night, that they are readily caught with the hand the next day.

It is not so extraordinary that the Quails are met with on either side of the Mediterranean in such great numbers, if we explain at the same time that these birds arrive in the autumn in families from their summer retreats, and congregate in large bodies on the shores of the Mediterranean, awaiting favourable weather for crossing the sea.

Some few birds remain frequently lingering behind, and this accounts for the fact that we shot a Quail as late as the 18th of September, 1841, in a field of Swedish turnips, at Halliford, in Middlesex. Besides the lateness of the season, the actions of this bird attracted our notice, and annoyed our trusty old dog very much. When the dog pointed and remained for some time looking to the right and to the left, and no bird getting up on the word being given, it seemed as if the animal was at fault; we were, however, induced to place full confidence in the honest old beast, and after waiting for some time longer, we walked close up to the spot, and saw a Quail spinning round and round, first one and then another of the Swedes, and by that means puzzling the dog, and, as it were, refusing to take wing. There remains no doubt in our mind that many a dog gets a good beating for making what is called a false point under similar

circumstances; and the Quail in question, by changing his ground from one Swede to another, gave us the opportunity of punishing the right offender by shooting it.

Quails are not seen to arrive in the spring of the year, or to leave us in the autumn, which proves the general supposition that they migrate during the night; we are able to add our own testimony on this subject, corroborating the belief. Among our numerous collection of British birds, we possessed a pair of Quails; and one evening, towards the middle of August, these birds became so restless, that we carefully watched whether a cat or any other annoyance was near, for with it the birds uttered their call-note, sounding somewhat like *pivoy-erie*: this restlessness lasted during the whole night, and was repeated for several nights in succession, while the birds were quiet during the daytime again.

The chosen locality of the Quail is open cultivated ground, particularly where wheat-fields and meadows are close together, and where the richness of the soil produces diversity of weeds. On the first arrival of the Quail, in the month of May, young wheat and short grass-lands invite the bird more than any other inducement to remain there for the season; but when the grass gets too long and thick, the Quail frequents that field no longer. Neither mountainous districts nor low, wet, marshy land is at any time preferred by the Quail, but even or sloping ground, provided it meets with standing corn of divers sorts, peas, turnips, or even beans, where the bird is safe from the pursuit of hawks.

In the latter part of the summer, when corn of all kinds are housed, turnip fields, and the long grass along hedges, shelter the Quail until the proper time for migration arrives. Like many other migratory birds, a certain chosen spot is generally frequented year after year, when the breeding-season arrives; and we were informed by a gentleman resident near the place where we shot the Quail before mentioned,

among the Swedes, that he had known that very spot tenanted by a brood of Quails annually for many years.

The outward appearance of the Quail is not very striking, in consequence of the predominant brown colouring of its plumage, and the rounded shape of the bird; but, on close examination, it is one of the most beautifully marked species that visits this country.

The Quail lives on the ground, where it looks for its food in the manner of the partridges. It runs with great ease and swiftness; its flight is quick, and much resembling that of the partridge, but apparently performed with more ease. The Quail flies, when unprovoked, in a straight line; but is nevertheless able to turn at angles easily if required. By preference, the bird now before us does not take wing, and frequently resorts to it, if pursued, too late for its own safety: dogs frequently catch them, boys knock them down with a stick, and when the Quail does fly, it is only to a short distance, and with a little attention the bird may be seen to drop itself down in a bush or tuft, and remain there close for any handy person to take the bird alive. When this bird alights on a ploughed field, or in the track of some carriage wheel, it will hide its head behind a lump of earth or in a hole, and thus expose itself to imminent danger. Considering these points, and adding them to our observations made under divers circumstances, we must give it as our opinion, that the bird is nervously timid by nature.

During the greater part of the day the Quail remains hidden and quiet, unless a hot sunny day invites it to dust itself, and then it enjoys lying on one side with its legs extended, and sleeps. Towards dusk the bird becomes more animated, and goes in search of food until late at night. Early in the morning, before daybreak, it is about again, which lasts till the sun rises, when sheltered places receive it as usual. When hunger presses during the day,

it ventures no farther than an adjoining stubble-field. Quails are very unsociable birds, for they do not keep in company together even while running among the standing corn; and when a pair of them is started on the wing, they fly away in different directions. Even when there is a young brood they hardly keep united, although the mother calls her young ones together while they are quite small and helpless. The male birds fight at all times whenever they meet in a wild state, and this propensity has induced man, ages ago, to keep Quails for the purpose of enjoying the sight: at present this cruelty is still practised in some countries, but we hope that civilization will change the unmanly taste. The Quail does not require to be encouraged in its propensity for fighting, for if a pair of birds, male and female, which have not been caught together, are put in a cage, the male is almost sure to peck the female to death if she intrudes on his privacy.

The call-note of the Quail is very peculiar, and varied under different circumstances: in the spring of the year they say *bubewee* or *brubrub;* when frightened they chirp like young chickens; and if caged during the time of migration, they incessantly repeat the word *pievoi-ree, pievoi-ree*, in a fretful tone, at the same time endeavouring to find an outlet to escape by.

The Quail is easily tamed in confinement; and we are assured by a person who kept some live birds, that he had among others a Quail, which had the liberty of running about his study; and in the same room a favourite setter dog was allowed entrance: by degrees the two animals became acquainted, and the Quail might frequently be seen to lie on the rug near the dog, enjoying with him the warmth of the fire.

The Quail feeds on grain, seeds, and insects, and, like most of its kind, swallows coarse sand or small stones with its food, to assist digestion.

Although the call-note of the Quail may be heard about the middle of May, it is very seldom that any eggs are found before the month of July, or at the soonest by the end of June. The chosen place for a nest is frequently among peas or wheat, where the female makes a hole in the ground, and in it deposits her eggs, from eight to fourteen in number. After eighteen days' incubation the young make their appearance and run about as soon as they are out of the shell and dry, and follow the parent bird, who instructs them in finding and feeding on ants' eggs and small insects, until they become strong enough to feed on seeds and grain.

The Quail affords many persons a living during the time of migration, either in the spring or the autumn. Its flesh is highly prized, and consequently great numbers are annually caught in the south of Europe for the supply of the table. Many are also brought over to this country from France for the London market: these birds are put in cages as soon as caught, and thus forwarded alive.

The manner in which the Quail is caught is either by means of a mouth-piece or whistle, with which the call-note of the bird is imitated, and thus the birds are drawn into a net; or else a hen-bird is caged and used as a call-bird in the same way. The nets used for catching Quails are of a square shape and placed in the standing corn, or close beside it; and as the birds run or flutter to reach the spot where the supposed mate is, they become entangled in the net.

The Quail measures eight inches in length. The beak is bluish horn-colour, the iris amber, the legs yellowish brown. The crown of the head is yellowish white; along each side of which runs a rufous brown band, beginning from the nostril and terminating in the nape: above the eye passes another yellowish white line in the same direction. On the chin and throat is a black mark, which turns upwards

to the ears; the rest of those parts are white: the entire upper parts rufous brown, with a straw-coloured mark along the centre of each feather, which mark is bordered with black. The breast is tinged with brown ochre; the shafts white; belly white, slightly tinged with rufous yellow. The feathers of the sides and flanks are longitudinally marked rufous and white; the quills are dusky, the outer webs barred with yellowish white. Tail dusky, consisting of twelve feathers which are hid by the upper coverts. The female has no black about the chin or throat.

The egg figured 157 is that of the Quail.

PLATE CLVIII.

ANDALUSIAN HEMIPODE.

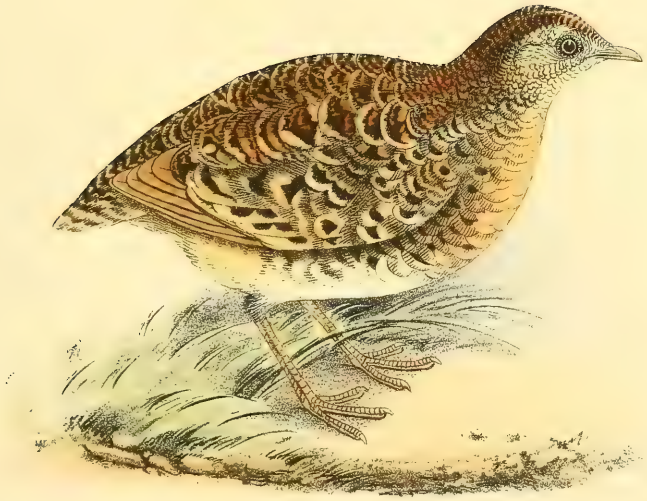
TURNIX TACHYDROMA.

We are indebted to Mr. Goatley, likewise, for the loan of the specimen here represented, namely, the only known British killed specimen of the Andalusian Hemipode.

This bird was shot on the 29th of October, 1844, by a gamekeeper, about three miles distant from Chipping Norton, in Oxfordshire; and some weeks after, another bird of the same species was also shot by the same gamekeeper; but, in consequence of its head having been shot away, that specimen was not preserved. It is supposed that these two birds were an accidental pair that visited this country, for neither previous to obtaining the first killed bird, nor after the death of the second, has any other individual of the species been observed.

Temminck's account of the Andalusian Hemipode is as follows:—It inhabits the south of Spain, Grenada, Andalusia, and Arragon; lives among grasses and underwood: its food consists of small insects and small seeds. Its manner of breeding is unknown, and consequently its eggs can neither be figured nor described.

In the fourth volume of the same author's work, he says that the bird lives solitary, and does not migrate; it even seems not to leave the neighbourhood in which it is born. This bird takes wing very unwillingly, and only flies, or rather skims, above the level of the grass to a very short



distance, hardly sufficient for a sportsman to take his aim, and is hardly ever seen a second time on the wing, but squats so close to the ground, that it requires care not to tread it to death. The Hemipode also runs very fast, by which means it escapes pursuit very generally.

The Hemipode measures nearly six inches in length. The beak and legs are yellowish-brown; the iris hazel. The top of the head, nape, back, wing-coverts, rump, and tail-coverts, are of a yellowish dusky brown. The feathers, in two rows on the top of the head, are dusky, broadly edged with pale yellowish-brown, and tipped with rufous, thus forming a light-coloured central line from the base of the upper mandible to the nape of the neck, right and left of which is a band of dusky black and rufous. The sides of the face are soiled buff-colour, tipped with dusky. Chin and belly pale yellow, almost white: from the gape on each side down the breast runs a broad band of rich orange buff-colour, which unite on the chest, where the colour is concentrated and deepest, and spreading over the sides and flanks, unite again at the vent, and terminate over the under tail-coverts. The feathering of the back and all the upper parts is finely and transversely pencilled with black. The centres of the feathers on the mantle are richly stained with rufous, those of the back largely spotted with the same. On the wings are several large round black spots, as represented in our Plate. The sides of the neck, breast, and flanks are also spotted with black, owing to the feathers being ornamented thus towards their tips, and broadly edged with the paler colours before mentioned. Quills dusky, edged with pale brown.

PLATE CLIX.

GREAT BUSTARD.

OTIS TARDA.

The Great Bustard used formerly to be a common bird in England, but the increased population, and consequently the extended cultivation of waste lands, have not only diminished the number of this fine species, but it is even feared that not a single bird is alive at the present time in a natural state, in Great Britain.

According to Colonel Montagu, a very favourite haunt of the Great Bustard was the Druidical monument of Stone Henge, on Salisbury Plain, in Wiltshire; although for many years (ever since 1810) not a bird of the kind had been seen or heard of there. Whether there are some few of the species remaining in Norfolk is not very well known, and we may consider it to be very doubtful.

It is a very great pity that so fine a species of game-bird as the Great Bustard is lost. The bird itself used to be an ornament to the landscape, as well as a valuable acquisition for the table; and the manner of hunting the young, before they had the full use of their wings, was so different from the mode of obtaining any other birds, that the extinction of them is felt manifold.

The Great Bustard is an inhabitant of the moderate climes of the old world, central Russia, Germany, Italy, France, and



also Switzerland; it is likewise found in parts of Asia, namely, in Syria.

In some parts of Germany the Great Bustard is a very common bird, and may be considered indigenous, although scarcity of food, owing to the deep snow that sometimes lies for a length of time, drives it to the milder parts, where such a cause does not occur. This change of abode is more to be called wandering than migrating, since the Great Bustard does not leave its usual haunts at any stated period, nor does the bird return later than when the snow disappears. When the Great Bustards are forced to leave their usual haunts, they usually collect in considerable flocks or droves; and the birds journey over hill and dale during the daytime, at a very great elevation, without any order or regularity.

The Great Bustard chooses for its locality, by preference, extensive open plains, and avoids mountainous and wooded districts. In fields of wheat and rye the bird is very likely to be found, and in the autumn in large fields of rape and turnips, which entice it to stay until the spring of the year. Owing to the extreme shyness of this bird, it not only avoids human habitations and wooded or enclosed lands, but even single trees, gates, or any lonely object on the ground, unless during the breeding season, when the birds are very restless, and flying low over the ground, they pass close by such dangerous objects carelessly.

The Great Bustard is hid during the daytime in the breeding season among the standing corn; but when the weather is wet it drives the bird to the open, fresh-ploughed fields, where it remains among the furrows, always watchful for its safety. The night is passed by the Bustards in the most open situations; and if nothing has disturbed them, they return again and again to the same place. It is by their soil that it is ascertained how each bird keeps its distance from its neighbour, and that the younger birds are invariably

disposed in the centre of the group: the number of the party is thereby equally ascertained. Very early in the morning the party or family take wing and proceed to their feeding-grounds. It is a very rare occurrence to be enabled to surprise the Bustards, even during the night, by stealing on them in their retreat or roosting-ground.

The general appearance of the Great Bustard is very remarkable and imposing: the male bird in particular, on account of the beautiful looso and ornamental feathers of the cheeks; and the rich markings on the upper parts of the back and tail are very unique. When the bird is running about it carries itself much in the position of domesticated fowls; but from these its larger size as well as its longer legs distinguish it immediately. When it squats or sits on the ground, which it does for hours together during warm weather, its posture is most like that of a goose, in consequence of its long neck. While in the pursuit of food the Bustard goes about in a very stately manner; but if called upon to exert its legs, the bird can run swiftly enough to try the speed and wind of a fast dog. It is said that when a Bustard is winged by a sportsman it rarely resorts to running: whether this is owing to the surprise of the hurt, or from other causes in its nervous system, is a matter of doubt, but of great advantage to the sportsman.

Owing to a very peculiar smell which the Bustard carries about with it, and which remains even after being roasted and dished up, some persons dislike the flavour of its meat; and some dogs (pointers) are not easily trained to hunt properly for it. From what cause this smell originates is uncertain, but it resembles that which carrion crows and ravens are known to possess.

In consequence of the sharpsightedness of the Great Bustard, and the incredible caution with which it chooses its place to alight, it becomes exceedingly difficult to lie in wait

for the purpose of shooting it, or to approach it by stealing upon its haunt. Its organs of scent and hearing are not only less acute, but very deficient, for if a person can hide himself in a ditch among long herbage or brambles, and watch the arrival of a flock of these birds, he may pick his bird at ease, provided he keeps out of sight.

It is reported that the Bustard lives to a very great age, and this is stated to be as much as half a century, or more. How to ascertain the fact is very difficult; but the rare circumstance of an old male bird being shot, in consequence of its great cunning, and, when such a capture happens, the strength of the bones and coarseness of the flesh, prove in favour of the report, and we are willing to give credit to the possibility; nevertheless, we must regret that the species has either not been able to keep out of gun-shot of the British sportsman, or has not lived long enough to give him the opportunity of making his observations, now that Ornithology is more studied than it used to be.

The usual number of Bustards seen together in a field is from five to ten; but, where the birds are plentiful, in some parts of the Continent, they will congregate and remain in flocks of more than a hundred individuals: this chiefly happens in autumn and during the winter.

The present species is very rarely kept alive in confinement, for its obstinacy in refusing food and its great fear of mankind make it exceedingly difficult to manage.

The Bustard hardly utters any call-note, unless a cooing noise in its throat is mistaken for it, which resembles that of the pigeon.

The food of the Great Bustard consists in vegetable matter, such as green corn and seeds, rape seed in particular; cabbages, and the leaves and stalks of many wild plants, clover, and also insects: these latter are at all times the food of the young birds, but only during the

month of August a substitute to the adult, while they frequent the fallow lands. The manner of obtaining its food is by means of its strong beak, with which the Bustard pulls the plants out of the ground, and among others carrots and beet-root, for it makes hardly any use of its feet in scratching the ground or turning it up.

About the month of February the flocks of the Great Bustards divide, and the birds begin to pair, and contests take place among the male birds: it is also about this time that the birds are more easily approached, or rather that they put themselves frequently in danger by flying in pursuit of one another in all directions, unheeding the vicinity of trees or buildings. According to the season, the birds are paired either in March or April. While the female deposits her eggs or sits on them, the male is only seen alone; but as soon as the young birds are a few weeks old, the male and female take charge of them together. The Great Bustard pairs at least for the season, if not for life. The female deposits only two eggs, and frequently only one young one comes to perfection. Owing to the very tender legs of the young birds when newly hatched, it is some weeks before they can run about much, so as in any way to keep pace with their parents. The tender affection of the mother towards her offspring, at that time, is very remarkable; and, when approached, the parent acts precisely in the same manner as the partridge does, by shuffling along the ground until she considers the intruder far enough off, and then flies away: the young in the meantime hide themselves from view as much as possible by squatting close to the ground.

The size of the Great Bustard is a protection against the attacks of most of the falcons. The eagles can obtain the mastery of it, as a matter of course; and the osprey, the jer falcon, and, in some instances, the peregrine falcon,

venture upon a battle with it, the latter chiefly in hope of carrying off a young bird, which is, however, always strongly protected by the mother. The fox and weasel are very formidable enemies to the eggs and young.

It requires large shot or a bullet to kill this bird, for the feathering of the Bustard is very strong, and the bones large and hard.

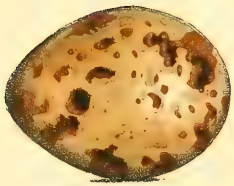
The Great Bustard is the largest of British birds, weighing as much as thirty pounds.

The bill is dusky horn-colour; the legs bluish horn-colour; iris hazel; head and neck ash-coloured; the upper parts of the feathering yellow ochre and rust-colour, barred with black as represented in the Plate; greater wing-coverts pale ash-colour. The primary quill-feathers are black, the secondaries and spurious winglet are white, the tertials rufous, barred with black; the feathers of the tail are ochre-yellow, edged and tipped with white, with a broad black bar near the end. The tail is frequently carried erect, like that of the turkey, with the feathers spread out like a fan. The legs are reticulated, the upper part of the toes scaled. The sides of the face, in the male, are ornamented with fringed, hairy feathers, that stand out like the whiskers of a cat.

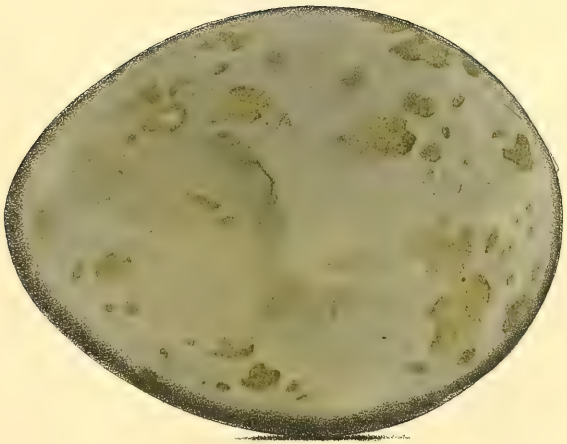
The female nearly resembles the male in the colours of her plumage, but is not whiskered.

The young birds in nestling plumage are mottled with reddish-white and dusky.

The egg figured 159 is that of the Great Bustard.



157



159.



PLATE CLX.

LITTLE BUSTARD.

OTIS TETRAX.

The Little Bustard is only an occasional and infrequent visitant in Great Britain; and it is strange, that, although the bird is an inhabitant of warmer regions than ours, the male bird has never been killed here in its summer plumage. The native residence of the Little Bustard is the south of Europe, Asia, and the northern parts of Africa. It occurs in the southern parts of Siberia and Tartary; in the southern provinces of Russia, Turkey, Greece, and Italy; also in Spain and the south of France.

It is very remarkable that the Little Bustard breeds invariably in the warmer climes, and yet one has scarcely ever been killed in Britain but during the winter, or late in the autumn. What inducement these birds could have had for visiting us at so unfavourable a season for food and climate, is not understood. It is possible that a continuance of strong winds from one quarter led the birds astray; after which they have been glad to alight, and thus, by accident, specimens have been obtained. The favourite haunt of the Little Bustard is open grounds, either corn-fields or sandy downs and wastes. Like the great bustard, the present species avoids mountainous and wooded country: any standing crop of corn, potatos, turnips, &c., serve to hide the bird from

view in the summer season; and when danger comes upon the Little Bustard, in the shape of a man or dog, it squats close to the ground, and there remains until it is past.

The general appearance of the Little Bustard is in many respects like that of the former species, but, as its name announces, it is much smaller in size: it runs on the ground with the same bearing and with more agility. When the present species alights, it generally runs for several hundred yards along the ground in a straight line, which contributes much to its safety, and often procures its escape from the uninformed gunner, who is certain in his own mind of having kept his eye upon the very spot where the bird alighted. The Little Bustard runs also much faster than the Great Bustard, and, when a single bird is in a certain spot, it does not take wing so soon if it is pursued or approached by the enemy; but, when a family or many of the species are congregated together, they no sooner see a person approach, but they take wing and fly quickly away, high in the air.

The note of the male bird sounds like the syllable *proot! proot!* which is more frequently uttered during the night: the nestlings and young chirp like chickens.

During the summer the Little Bustard feeds principally on insects and their larvæ, such as large beetles, grasshoppers, ants and their eggs; and also on the hearts of vegetable productions, such as cabbages, turnips, and young or green corn. Water does not appear to be of much service either to the Great or Little Bustard. In the month of April the Little Bustards make arrangements for breeding, by resorting to their usual breeding-places, namely, level, dry, and well cultivated ground. The male bird is polygamous, and the proportionate number of hen birds is not only obviously larger than that of the other sex, but there are numberless collections of stuffed birds in Europe, where the male of the pre-

sent species is either wanting, or only appears in its immature or winter plumage. The hen bird makes no nest, but scratches a hollow place under some thick foliage of weeds, or among long grasses, and deposits her eggs (three, four, or five) on the bare ground; and as soon as the young are hatched they follow the mother in search of insects, and keep very close in the standing corn, where the male bird chiefly passes his solitary life during that time of the year.

The Bustard figured in our Plate is the adult male in summer plumage, in which it appears very different from its winter dress, and also from the feathering of the female at all seasons. The female has no black about the head, throat, or breast, nor any pendant or bushy feathering; her head and neck are pencilled with black on the general buff ground colour that pervades all the upper parts of the feathering.

The egg figured 160 is that of the Little Bustard.

PLATE CLXI.

CRANE.

GRUS CINEREA.

The Crane is an inhabitant of the old world, and distributed all over Europe, with the exception of the most northern latitudes; over most parts of Asia, and some provinces of Africa.

During the summer months the Crane frequents the temperate climates; in winter it retires southward to the tropic regions. In Europe the bird goes as far north as Sweden, Finland, and the middle of Siberia. It also visits China, Hindostan, Persia, Arabia, Egypt, and Africa; and is found at the Cape of Good Hope. The distribution of the Crane is very partial in Europe; and in Great Britain it is one of the most rare occasional visitants; whereas it is by no means an uncommon visitor in Poland, Prussia, central Russia, and some provinces of Sweden: in Holland it is only seen during very cold winters, on its migration. Many individuals pass the winter in Turkey and Greece, although the greater number retire beyond the Mediterranean.

The chosen locality of the Crane is flat country and lowlands during the breeding time; and except during the time of migration, which occurs twice a year, the Crane is only seen as a lonely bird, or at most with its mate; but when migrating, these birds assemble in very large numbers, and



in the spring many thousands collect on the island of Rügen, awaiting favourable weather to cross the Baltic, which passage they perform in one night. In autumn the same may be observed on some islands in the Mediterranean, when the birds travel towards the south. Acccording to Mr. Drummond the Crane is very rare in Corfu, but occasionally seen there in the spring.

It is remarkable how very punctually the Crane keeps to its time of autumnal migration, namely, within eight days during the month of October, being from the 12th till the 20th of that month; and still more curious is the fact of this bird having been observed, for many years in succession, to travel or pass over a certain spot, within a thousand yards right and left, without variation. The spot alluded to is a gentleman's house, near a village in Thuringia. In the spring of the year the Crane arrives in Europe from the middle of March till the middle of April, according to the season being early or late. It is immaterial to the Crane whether it journeys by night or day, although the middle of the day is apparently the time generally chosen by this bird to recruit its strength by rest and food, when on a long journey. It has already been observed that the Crane travels in great numbers, it is necessary to add that such a number as a thousand or more birds is divided into smaller groups of from twenty to sixty, and that each group is regularly headed by one of the larger birds, and flies in the form of a swallow-tail, and all the groups remain very close to each other. When the weather is fine, the Crane flies steadily along, but when a change in the weather is expected, the birds proceed at a very considerable rate, and generally all of the party making a regular clacking noise.

Usually the Crane flies too high to be in danger of being killed by a common gun-shot. A very remarkable circum-

stance has been related by two great continental ornithologists, namely, Bechstein and Brehm, that the Crane is sure to be attracted by a fire during the night, if a flock of these birds happens to be on the wing; and these gentlemen speak of having witnessed a large fire in the village of Ernstroda, in Thuringia, during which a number of Cranes lowered on the wing with loud and constant cackling. The appearance of these birds flying round and round the fire, relieved against the dark sky, and reddened by the reflection from the flames of the fire, resembled nothing so much as evil spirits. It is also noticed by the same parties that Cranes never fly due north or south, but frequently east or west, and that the manner of their flight, as to position, or rank and file, is very interesting to witness.

The Crane resorts in summer to moist and springy woods, particularly alder plantations which border on cultivated lands, meadows which are partially inundated, or swamps where short herbage grows. In boggy morasses, where man cannot find a footing, the Crane enjoys to wade among the broken ground, and stumps of willows and alder, particularly during the breeding season. At the same time the birds resort frequently to corn and pea fields, being particularly fond of peas. The Crane seldom perches in trees, or on buildings or rocks, but roosts invariably on the ground, choosing for the purpose an open situation, as bare of trees and bushes as can be found. When such a spot is selected, the bird flies at least for a quarter of an hour round and round, at the same time lowering itself and reconnoitering the place. The party when alighted stations sentinels in all directions, which never fail to give timely notice of the approach of danger. During the time that the Crane sleeps, its attitude is generally that of standing on one leg, and drawing the other up close to its body; and its head is then rested on its back, with the beak hidden in the feathers.

The Crane is one of the most interesting of the feathered tribes; its stature is very beautifully proportioned, yet muscular, and its manners and bearing intelligent and imposing. The motions of this bird are so very much more graceful than those of the storks and herons, that they can bear no comparison. When the Crane walks about, it moves on in long strides and regular steps, and whether in slow or quick motion, is equally graceful. When on the wing, the Crane flies with beak, neck, and legs extended in a straight line, like the herons, but at times it circles round and elevates itself with much ease above the clouds, and out of sight.

During fine weather it is no uncommon thing to see a flock of Cranes soaring in the air and apparently exercising themselves. When on the ground, the Crane is at times sedate and pensive, and at other times very riotous and playful: under the last-mentioned influences, it runs about or jumps, hops or bows, like an actor rehearsing his part, and also plays ball with a stone or piece of stick, to the great amusement of the beholder. By nature the Crane is shy, and always on its guard, besides being exceedingly quick in avoiding danger: it is therefore natural that this bird lives generally to a great age. Its watchfulness in avoiding danger is sufficiently proved by the very rare occurrence of a sportsman getting, under any circumstances, near enough to shoot a Crane, for it seems impossible to steal upon this bird, or to calculate upon its revisiting a certain spot twice, in order to lie in ambush for it. The tall stature of the Crane may aid it much in seeing anything approach; and the precaution of the outposts or sentinels, when there is a party feeding or otherwise employed on the ground, entirely frustrates any intended surprise.

Among themselves the Cranes are very sociable; and, unless some jealousy arises during the breeding season, either for the possession of a place for breeding or for a mate, the

birds never quarrel among themselves, nor are they known to interfere with other species. The call-note of the Crane is a very loud, harsh, and peculiar sound, and is best described by comparing it to a trumpet sounding the word *curr* or *coor*, and this accounts for the birds being heard long before they are seen. The young birds of the year utter the word *sheeb* or *weeb:* when very young they chirp. When a great flock is on the wing the cry of these birds is consequently confused.

The Crane moults from June till August. This species when in confinement, either brought up young from the nest or winged, is very easily tamed, and becomes soon attached to its keeper or to persons that it sees frequently. Under such circumstances, it must not be forgotten that the bird is strong, and dangerous if it is out of temper; and the beak being powerful, as well as entirely at the command of its possessor, owing to its slender and pliable neck, is the weapon to be avoided. The before-mentioned continental ornithologist, Brehm, relates some interesting particulars of a pair of Cranes which he had procured when the birds were only a few days old. This pair of Cranes, a male and a female, became soon tame, attached themselves to their keeper, and came when called by their respective names. Their lodging was in the farm-yard, where they very soon took the lead, settled the quarrels of their companions, and punished the offenders according to circumstances. They exacted respect, and kept up their own dignity, ruling over bulls, cows, foals, &c., but declining at all times to interfere with the pigs. When their master walked out, they accompanied him wherever he went; and, as they were not sufficiently pinioned to prevent their flying, they sometimes remained out for the whole day, although they invariably returned home at night. When a flight of wild Cranes passed over, the two birds alluded to never showed so much

as a wish to follow them. Whenthe male met with an accident in breaking his wing, the female behaved with the most sensible affection, never leaving her mate for a single instant while he was ill: nor would she allow any stranger to approach him, until he was able again to go about with her. Not long after the female met with an injury which ended fatally. The male showed his grief in return, by going about and screaming most piteously, and trying to raise up his sister; and after her corpse was removed, the survivor went to look for her in every corner of the house, ran up and down stairs, stopped at closed doors until they were opened to let him in, in order to satisfy his search. Not finding her any where, he left the farm-yard for two or three days, then again was found, quite disconsolate and dejected, in the grounds, and allowed himself to be driven into his stall, where he stayed for a length of time. When the bird became full grown, he continued to shew a wonderful share of cleverness, far beyond any other feathered species.

For want of a companion this Crane attached himself to the bull of the farm-yard, which he accompanied wherever he went, marching beside the bull, or standing by when the animal grazed, and keeping off the flies. He followed him in and out of the stable, and when the bull did not make his appearance soon enough in the morning, the crane went to fetch his companion out. At times, when the bull stood still for some time in the meadow, the Crane would run a little in advance, and begin to chace round about him for amusement; then again he would turn suddenly back and come to meet him, bowing most profoundly: and this became a frequent amusement to the inhabitants of the village, through which the couple passed on their way home in the afternoon of a summer's day.

Some time after the Crane became as serviceable as a

shepherd's dog to the kine, and would not allow a single animal to stray from the rest. When horses were being harnessed for the plough, or put to any carriage, the Crane placed himself before them, and made them stand quiet until the driver was on the box, or had the reins in his hands. It was of no use for the horses to attempt to move on, for the bird punished them sorely with blows from his bill, or, spreading out his wings, stopped the way. The greatest attachment was shewn by this Crane to the cook of the family, who was in the habit of feeding the bird; and he made it a rule not to go to bed until she took him up under her arm, and conveyed him to his sleeping apartment. When any one insulted this Crane, the bird was unforgiving and revengeful in the extreme. One day, when the bird was in pursuit of some insects in a neighbouring garden, the owner of the garden gave him a blow with a stick, whereupon the bird defended himself most valiantly until a succession of blows obliged him to retire. Soon after the Crane took his station on a bridge that led to the village, and which the person in question had to pass. The Crane maintained the ground, and at last pursued the enemy until he was obliged to take shelter in his house and shut the door. From that time the Crane remained the determined foe of his neighbour. The courage of the Crane in question was wonderful, yet on one subject he was always accessible to fear, namely, he could not endure the sight of any black moving object, such as a black dog, cat, or crow, and his greatest enemy was the chimney-sweeper.

The Crane feeds on vegetable productions of many sorts, and on insects. On its arrival in Europe, in the spring of the year, clover, young blades of grass, the leaves of mallows, chickweed, and nettles are greedily sought for; also barley, oats, and peas which are fresh sown, particularly the latter, of which he is very fond; this renders him very hurtful

to the farmers: and when the peas are in pod the Cranes bring their young broods to pea-fields as well for safety as for feeding on them. In the autumn, when insects become scarce, and most corn and seeds are housed, the roots of water-plants form a substitute. The animal matter consumed by the Crane consists in worms, amphibious creatures, and the smaller reptiles, beetles, and cockchafers, grasshoppers, flies, &c.; also cabbage maggots and their larvæ, caterpillars, snails, and slugs. The bird requires much water, and drinks very frequently. When in confinement the Crane is very easily fed with grain; at times some boiled potatoes and other vegetables or meat; and, for want of something better, this bird will perform the duty of the cat, by catching and devouring mice.

Although the Crane is a rare visitant in Great Britain, it breeds not only frequently in the northern parts of the Continent, but may constantly be seen to do so in Mecklenburg, Pommerania, Silesia, the neighbourhood of Wittenberg, the banks of the Oder in Prussia, and many other parts. In swamps where the alder and willow grows stunted, and where the ground is not frequented by men, owing to the unsafe footing, the Crane revisits its old haunt annually with its mate, unless a dry summer is expected; then they do not make their appearance, as instinct seems to warn the birds that they are not safe from the intrusion of man.

Cranes, when intending to build, arrive about the end of March or the beginning of April at their stations; but the nest is not thought of before herbage and foliage are thickening, and it is then usually placed on an old stump, or elevated dry spot, as far from the edge of the water as convenient, and is composed of dry rushes, flags, and reeds, very inartificially put together, and two feet or more in width. The eggs are never more than two in number, and are incubated by both parents. The young are at first

covered with cinereous brown down; they remain for some days in the nest, and are fed by the parents from their own crops.

Formerly, in the times of our early English authors, Cranes were not uncommon in this country, and Willoughby mentions that numerous flocks, during summer, were accustomed to visit the fens of Lincoln and Cambridgeshire; but since his time the birds appear to have gradually forsaken these islands, in consequence, doubtless, of increasing cultivation, to which their shy and lonely habits render them much averse. At present, from time to time, a single straggler is shot.

The length of the Crane is five feet, and its weight about ten pounds. Its beak, which measures four inches in length, is greenish yellow: the legs and feet are grey; the iris red. The forehead is blackish; the hinder part of the head naked and red, the nape ash-coloured. The sides of the head and neck are dull white; the throat and fore part of the neck are dark ash-colour; the breast and most of the other parts of the body fine bluish grey. Many of the feathers upon the wing are marked with black along the shafts, especially the beautiful tertial feathers which overhang the tail, and form the chief ornament of this elegant bird; the quill feathers of the wings and their greater coverts are also black.

The female differs little in plumage from the male, but immature birds have their feathers clouded with dusky brown.

The egg figured 161 is that of the Crane.



PLATE CLXII.

GREAT WHITE HERON.

ARDEA ALBA.

The Great White Heron is an occasional visitant in Great Britian, by no means a frequent one, but more so than has for some time been allowed. Its natural habitat is Asia and the eastern parts of Europe: in Turkey, Greece, and the Grecian islands the bird is well known, from whence it travels as far as Hungary during its periodical migrations, arriving in April, and remaining till September. The migratory journeys are performed in the daytime, at a great elevation, by two to four birds in number.

The locality chosen by the Great White Heron is the same as that of the common heron of our country, namely borders of rivers, small lakes and ponds, as well as morasses, and during the spring of the year the vicinity of lofty trees, being frequently seen to perch on the top branches in order to rest itself.

The Great White Heron prefers still, clear water with a muddy bottom, to rapid streams and a sandy bottom; and in such situations it may be seen to wade stealthily in search of food.

The general appearance of the Great White Heron is very beautiful, owing to its brilliant white plumage, particularly when contrasted against a dark sky, or the rich

verdure of a meadow, or a dark lake or pond. Its larger size distinguishes it at once from all the other herons, for which reason it is placed at the head of the list of its family. The present species is not so shy as the common heron, although the bird may be said to be on its guard and difficult enough to shoot, since it rises on the wing if any one approaches nearer than a hundred or a hundred and fifty yards.

The Great White Heron is rather sociable among its own species, and naturally frequents the same bogs and waters where other herons are also looking for food; but, beyond that, it never flies in their company, nor notices or cares for them any further.

The only call-note or noise uttered to our knowledge by the present species, is a syllable not very loud, sounding like *rah!*

In Sclavonia the young of the Great White Heron are brought up among other birds in the poultry-yard, and become as domesticated as the common heron and the stork; they live for many years, and are very ornamental and cleanly birds.

The food of the Great White Heron consists, for the most part, in fish, frogs, and water insects; also worms, small reptiles, young fowls, and other small birds.

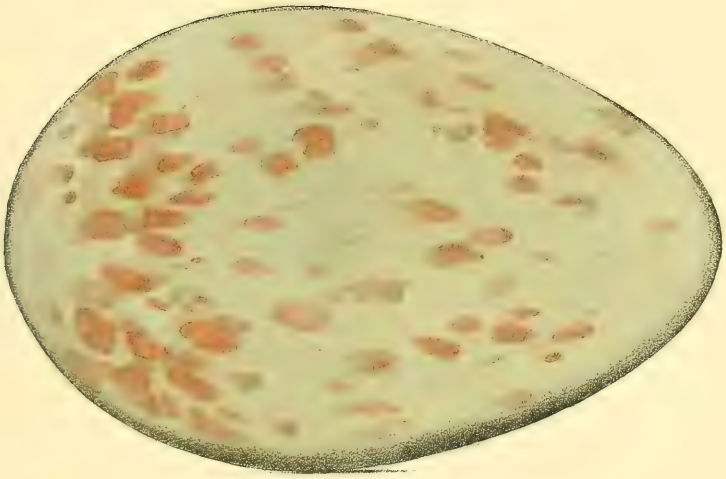
During the breeding time, the nests of the Great White Herons are built in trees, like those of the common herons of our country, and in numbers, like rooks', in one and the same tree. The nest is composed of dry sticks, heightened by dry stalks of reeds and rushes, and lined with leaves of divers descriptions: in it the female deposits her three or four eggs, as figured in our Plate. During the time of incubation the male carries food to its mate until she has finished her task, and the young are fed by both parents as long as such care is requisite.

The adult male of the Great White Heron measures from the beak to the extremity of the tail about three feet six inches. The beak is black except at the base, where it has a little yellow. The legs are black, with a strong transparency of flesh red; the iris bright yellow: the lore is greenish; the gape yellow. The whole of the feathering is white; the feathers on the top of the head are rather elongated and bushy towards the back of the head, but the present species has no pendant feathers in the nape: the feathers on the rump are very loose and long, hanging over that part, and hiding the tail from above.

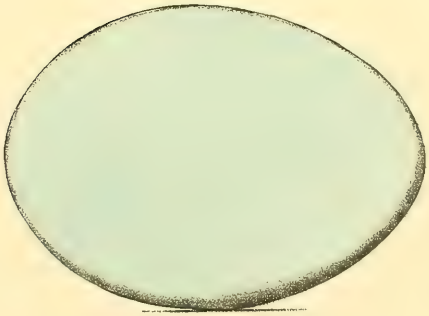
The egg figured 162 is that of the Great White Heron.



160.



161



162.



PLATE CLXIII.

LITTLE EGRET.

ARDEA GARZETTA.

The Little Egret is of very rare occurrence in the British isles at present, although it was formerly rather plentiful, according to Latham and other early authors. The geographical distribution of this species, however, exceeds that of the great white heron. In Europe the Little Egret inhabits principally the borders of the Black Sea, Turkey, Greece, and Italy; it is also found in Sicily and the south of France. In parts of Africa it is met with, namely, in Egypt, Nubia, and Senegal; also in the southern provinces of Russia. In Hungary is a certain swampy ground, intersected by ponds and rivulets, where not only the Little Egret but innumerable waders of different descriptions are found congregated.

The localities usually chosen by this species are generally the swampy banks of rivers and lakes, where the flags and reeds are of low growth, in the vicinity of woods and large trees, in which the birds roost at night.

The general appearance of the Little Egret is very elegant, not only in consequence of its diminutive size and pure white feathering, but in its bearing and movements, which are by far more graceful than those of the other members of the heron family. On the wing the Little Egret is rather quicker in flight than the larger species, but in windy weather it is

very helpless, and is obliged to skim low over the bushes and reeds, on its passage from one piece of water to another. But when the weather is fine, this bird may be seen, if startled up by intrusion of any kind, circling up high in the air, as if surveying the neighbourhood before it finally decides upon its course.

The present species may very easily be kept in the poultry-yard, provided a young individual is chosen for that purpose. When thus domesticated it is observed that the actions of this little species are very elegant and its manners amiable. When compared with the common heron or the stork, the graceful movements of this beautiful and slender creature are very remarkable. In captivity, however, it never becomes very tame or confiding, but it is gentle and free from malice.

The food of this little heron consists of fish and aquatic reptiles, such as frogs and their spawn, water-insects and their larvæ, worms, &c. The manner in which it obtains its food is by walking stealthily along the shore in a stooping attitude, with its head drawn back: as soon as it perceives a desirable object, the Egret darts its pointed bill like lightning upon it, and seldom fails to obtain its prey.

In the spring of the year the Egret builds its nest on the crown of a willow stump, or the sweeping bough of a spreading tree, or on the ground: its elevation above the ground, when in a tree, rarely exceeds six or seven feet, thereby never interfering with the nests of other herons. The fabric is constructed in the same manner as that of others of its tribe; the materials of which it consists are a layer of sticks, or stalks of rushes, the inner side of the leaves of flags, reeds, and grass, &c. The eggs are generally four or five in number, and in size not exceeding those of the common teal, of a pale bluish-green colour, as represented in our Plate.

The entire length of the Little Egret is twenty-two or

twenty-three inches. The beak is three inches and three-quarters long, eight lines deep at the base, and six lines broad. The colour of the beak is bluish-black, the base of the under mandible pale ash-colour, and the lore and eyelid pale green : the iris is gamboge-yellow. The tarsi are bright black, the feet greenish-yellow, the claws dusky. The entire plumage of the Little Egret is white, without spot or tinge. The feathers of the breast are long, narrow, and pendant; those of the occiput lengthened to form a crest; and the back is ornamented by loosely-divided plumes, which fall over and conceal the wings and tail. In young birds these ornamental feathers do not appear.

The egg figured 163 is that of the Little Egret.

PLATE CLXIV.

HERON.

ARDEA CINEREA.

The Heron is not only a well-known bird in Britain, but met with in most parts of the globe, except the most northern countries, known under the denomination of Arctic regions. Throughout Europe the Heron is found in low, marshy, and wooded districts in the vicinity of rivers and lakes. Many Herons remain with us the whole year, their numbers being increased from time to time by visitors from abroad, when severe frosts drive them southward from Norway or Sweden: but the greater number of Herons pass the winter in the southern parts of Europe, and on the opposite coast of the Mediterranean, to which retreat the birds migrate in September and October, and return from thence northward again in March and April. Herons do not migrate in silence, for, whether they fly high or low, they continually utter their harsh, unmelodious note, resembling the word *craigh* uttered in a lengthened manner with cracked and high-pitched voices. They generally travel in pairs.

The locality preferred by the Heron is near the pure and clear water of rivers and running streams, as much free from flags and weeds as can be found, as in such still, retired spots the birds can best pursue profitably their vocation, in obtaining the food most suitable to their tastes and habits.



The general appearance of the Heron when on the ground is rather ungainly and awkward, but it occasionally may be seen standing in a becoming position; and there is a simple unpretending beauty in the colouring of its plumage, and in the distribution and diversified texture of its ornamental feathers. When winged, or brought to the ground by some casualty, the Heron defends itself most vigorously, in which case it is dangerous for a sportsman to approach it unprepared, for the blows and stabs of its powerful beak are not to be trifled with; and the habit of darting its beak at a swimming fish or reptile teaches it to take an unerring aim: thus the eyes of the Heron's opponent are endangered. We know more than one instance of a boy having been thus blinded by a Heron in the shooting season, while in the act of picking up a wounded bird. When in the air they strike also with their feet: this they will do when they are shot at without being hit.

The Heron is very adroit at stealing upon its unsuspecting prey, as we have frequently observed during the spring of the year, when it has a young brood to supply. One morning, very early, we saw a Heron take a fine trout from the Thames, near Shepperton, in Middlesex: it dropped it twice on the shingle and picked it up again, the fish struggling so violently in the air as nearly to upset its captor; it was, however, finally borne in safety to a lofty tree in Oatlands Park, where there is a heronry. As we stood watching from behind some willow boughs, we had a good view of the bird and fish, and much lamented that the trout did not come to our share, as the fish could not have weighed less than four pounds. Its choosing so large a fish was probably in consequence of its having young ones to feed, as, although sufficiently voracious, these birds usually content themselves with fish of lesser dimensions.

The Heron is a very shy and watchful bird, and its quick

sight enables it generally to keep out of danger. It is remarkable how alarmed Herons are during storms of thunder and lightning, starting at every flash, and tumbling about as if winged. During rainy weather these birds appear very dejected, and sit in the most drooping attitudes imaginable: they appear to suffer also from frost and cold.

The food of the Heron consists chiefly of fish and reptiles; and the manner in which it obtains the former is by carefully wading in shallow water with slow and perfectly noiseless steps, the head laid on its back, or bent forwards in a horizontal line, ready to dart its beak with the most incredible precision at some fish that has come within its reach; and it is a very rare occurrence that the Heron misses its mark: it is observable that every fish is swallowed head foremost. Besides fish, the Heron feeds also on young water-fowl, small birds, young chickens, mice, &c.

In consequence of the diversity of food suitable to the Heron's taste, it is not difficult to keep one of this species in confinement; but the bird is neither useful nor engaging, and no one but a naturalist thinks of making the attempt of taming an old bird, or bringing up a young one.

There are so many heronries in different parts of Britain, that the fact of their breeding in this country is sufficiently established: the localities chosen for nidification are the strong top branches of lofty trees, where many nests are generally found in a small compass, namely, spreading over a few trees. It is remarkable that these shy birds are so very tenacious of their accustomed breeding-places, that it is a matter of great difficulty to make them forsake a spot where they have once taken possession. It is necessary that water well stocked with fish should be near them, or at least within reach of the heronry, although there are instances of the Heron building at the distance of several miles from any river or lake; under such circumstances, young broods of domestic

fowls, and small birds, are much in danger of being made free with.

About the month of April the Heron begins to look for its last year's haunt, and sets about repairing some old nest, which, when completed, measures from two to three feet in width, and is composed of sticks and twigs, very carelessly heaped one upon another, and finally lined with softer materials, such as wool, hair, dry flags, and straws; and by the end of April three or four eggs are deposited: these are hatched in about three weeks by the female bird, while her mate constantly feeds her during the time of incubation; and this accounts for the constant flying to and from the heronry at this time of the year. The young are unsightly, helpless creatures, but grow very fast, and are carefully waited upon by the parent birds. After the breeding-season the heronry is left by all the birds, except a few adult individuals, who continue to make it their roosting-place.

The Heron measures about three feet and a half from the tip of the beak to the extremity of the tail. The beak measures four inches and a half, from the tip to the feathers on the forehead, and nearly seven inches to the gape. The edges of both mandibles are very acute, the lower fitting with great accuracy within the upper, and both are sharply serrated or toothed, the teeth or serratures inclining towards the bird's swallow, by which construction the escape of the most slippery prey is rendered nearly impossible when once captured.

The simple colours of black, white, and grey, that adorn this bird, are elegantly disposed in the following manner:— The forehead, crown, and sides of the face are white, as are also the throat, breast, thighs, and some of the under parts; the long plumes that spring from the crown of the head are black, as well as the flanks and sides of the breast: the quill-feathers of the wings and tail are deep ash-colour, the rest of

the wing silver grey; the middle of the back the same, and the long acuminated feathers of the scapulars nearly white. The hind part of the neck is also pearl grey; the sides of the neck and breast slightly tinged with flesh-colour: the front of the neck and breast are ornamented by a double row of blackish oblong spots. The eyes are yellow; the lore green: from the convex of the eye rises a streak of black, which runs towards the crown, where it unites with the crest. The beak is orange at the base, yellow towards the tip. The legs and feet are greenish-brown, the naked part above the knee orange.

The eggs of this species are four or five in number, and are in colour pale green, without polish, as represented in the Plate (fig. 164).



PLATE CLXV.

PURPLE HERON.

ARDEA PURPUREA.

The Purple Heron is an occasional visitant in Great Britain, and has been captured more frequently of late years, since the taste of the public has led to making collections of stuffed specimens of British Birds. The proper residence of the Purple Heron in Europe is the south and south-east, from the Black Sea throughout Turkey, Greece, Italy, Hungary, Germany, France, Switzerland, and Holland, from whence it naturally comes over to us. In Asia it is more frequent still, even as far north as the southern parts of Siberia, but increasing in number as the countries approach the south. It is also met with at the Cape of Good Hope and in India.

The habits of the Purple Heron differ from those of the common Heron, inasmuch as it is never seen along the banks of rivers where the water is open and runs freely along, but among high flags and rushes, by sluggish, muddy streams, and the shallow, swampy banks covered by aquatic vegetation, that encircle lakes and ponds ; hence it is that the borders of the Black and Caspian Seas harbour it plentifully.

The Purple Heron is rarely seen at any distance, owing to its habit of hiding continually among the long herbage and stumps of trees ; and in such places it must be looked for by the

sportsman or ornithologist, if he wishes to obtain a specimen. It is remarkable how this bird often precipitates itself out of its hiding-place from behind some stump or water-plant; for, like many other birds that are fond of hiding, it thinks itself secure until a nervous feeling makes it run into imminent danger by discovering itself when any person comes near. When speaking of the tall water-plants among which the Purple Heron resides, it is necessary to add that those parts only are frequented where these plants are thinly distributed over the surface, among which the bird can move about in search of food.

The general appearance of this species is smaller than the common heron, and by far more slender, but by no means more elegant, which we were surprised to find on watching the movements of this so beautifully feathered bird. The attitudes sometimes assumed by the Purple Heron are far from elegant; as, for instance, it will sit for hours together at rest, with its neck stretched out in a straight line, just as if the whole bird had been strung on a stick or fishing-rod. We are convinced that these attitudes are of service to the creature in order to save it from detection, but they are at least not pleasing to the eye of the beholder. In its walk the Purple Heron is rather more active than the common species, and on the wing it moves with more swiftness and ease.

This heron is a solitary bird, keeping generally to some favourite spot; and during windy weather it rarely flies about: its disposition is more friendly than the former, and far less spiteful. When the present species has made choice of some spot for a residence, it remains in it the greater part of the day, and only leaves it early in the morning or late at night.

The note of this species is much like that of the common heron, but much weaker and rounder in its sound; it only utters it when on the wing, and then only occasionally. If

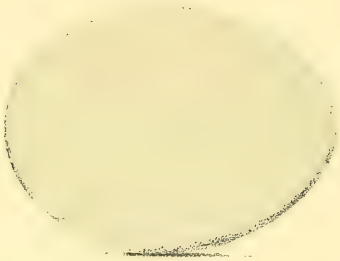
brought up from the nest this species does very well in confinement, although its pointed bill is very dangerous to the eyes of its companions.

The food of the Purple Heron is much the same as that on which the common heron subsists, namely, fish, and reptiles, and water-insects; the number of small fishes found in its stomach is frequently half a hundred, consequently the havoc among the finny tribes in a given space must be wonderfully large. The reproduction of the present species is carried on in the same locality where the birds chiefly reside; and the nest is placed among thick rushes on the ground, among long grass, a few yards distant from the water. Although each pair builds separate from others of its species, it is no rare occurrence to find two or three or more nests in a suitable place. The structure itself consists mostly of dried stalks of flags, intermixed with some fine dry twigs, and lined with softer materials, such as grass, straw, wool, or any other convenient substance. The shape of the nest is very flat and broad, and might hold a larger family than it is required to contain. The female deposits her three or four eggs in the nest, and the young are carefully attended by the parents until they are ready to provide for themselves.

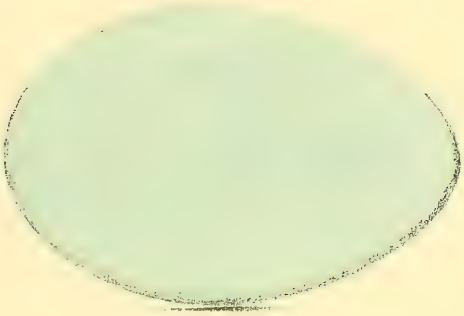
The entire length of the Purple Heron is nearly three feet from beak to tail. The beak is yellow, with a brown ridge on the top of the upper mandible; the lore greenish-yellow; iris orange-yellow. The feathers on the top of the head are black, some reflected with green: a black line runs down the back of the neck, and another from the posterior angle of the mouth down the sides of the neck, for more than half its length; the front of the neck is streaked with black, white, and purplish-red. The feathers of the lower part of the neck are acuminated and long, of a pale grey, white, and purple colour intermixed; the cheeks and neck are rich reddish-brown,

the chin and throat pure white. The shoulders are adorned with feathers of a rich purple; the breast purplish-red: the edges of the wings are white. The back, wing-coverts, and tail are grey: the scapulars are long, and of a deep lavender; the belly greyish and black. The tibia, hinder part of the tarsus, and under parts of the toes are yellow; the front of the tarsus and upper parts of the toes are brownish-green.

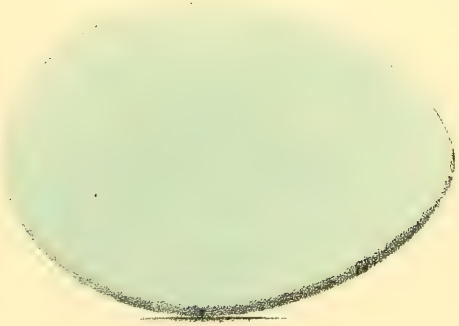
The egg figured 165 is that of the Purple Heron.



163.



164.



165



PLATE CLXVI.

BUFF-BACKED HERON.

ARDEA RUSSATA.

This rare visitant in Great Britain is an inhabitant of Asia and Africa; it is found during some parts of the year in the most southern parts of Europe, which border the Mediterranean, but not in any numbers; and its habits are still unknown. The only British killed specimen is in the British Museum, and is in immature plumage; it was killed in Devonshire in 1805, according to Montagu. Temminck informs us that this species is common in India and Japan, all of which proves the Buff-backed Heron to be indigenous in the warmer parts of the world.

The measurements, which we have taken from the specimen in the British Museum, are as follows:—From the tip of the beak to the extremity of the tail, twenty inches; the beak, two inches along the upper ridge. The legs are nearly three inches and a half long; the unfeathered part above the knee, one inch and three lines; the middle toe, two inches and three-quarters: the wing, from the carpus to the tip, ten inches.

The plumage is white, with the exception of the feathers on the head, which are saffron-yellow; the throat, front of the neck, and breast gold-yellow. The flowing ornamental feathers of the back, ochre-yellow. The beak is ochre-yellow, darkest at the tip; the lore yellow, and the iris gamboge-yellow. The legs are olivaceous black; claws dusky.

PLATE CLXVII.

SQUACCO HERON.

ARDEA RALLOÏDES.

The Squacco Heron has been captured and killed in Britain in several instances, according to the statement of various ornithologists, although the species belongs to warmer climes. Its chief residence is Asia and Africa; in the vicinity of the Caspian and Black Sea, Persia, Syria, and Arabia; in Africa, throughout Egypt and Nubia; and in the south of Europe, such as Turkey, Greece, Italy, and Sicily, the south of France and Spain. Now and then the Squacco Heron visits Switzerland, Silesia, central Germany, and Holland, but not further north. The usual periods of migration of the present species are April and September; during which time the birds are seen in tolerable numbers travelling together, although they frequently migrate in pairs.

The chosen locality of the Squacco Heron is in broken swampy ground, along the borders of lakes, rivers, and ponds, where it can meet with aquatic plants and osier stumps, &c., but not where the rushes and flags are formed into extensive plantations, or, as it is called, "beds." This species is not entirely attached to cover of any sort, for it may not unfrequently be seen during the day to stalk about in great numbers on the banks of the rivers and lakes in Hungary, in company with hundreds of other waders, in search of food for



its own subsistence and that of its young brood. In Sclavonia there is hardly a herd of swine without one or more of the Squacco Herons being of the party: it also associates with cows and sheep, which shews that the bird must be partial to cattle. It is said at times to be seen perched in a tree, particularly in the spring of the year. The present species has also the character of frequently roosting or sleeping during the day in an open situation, or at most hidden behind a willow stump or bush.

When the Squacco Heron stands at rest, its figure or attitude denotes its species at a glance, in consequence of its body being in a perpendicular position, its long neck shortened, and its beak facing the wind; while the elongated feathers are gracefully waving in the air. The motion or walk of the Squacco Heron on the ground is not rapid, but more active than that of all others of its family; and yet in pursuit of its prey it proceeds in the same stealthy manner.

The flight of the Squacco Heron is not quick, but noiseless and light; the head and neck of the bird are drawn close to the body, and the small cream-white wings beat the air with much regularity: the legs are extended out behind, like those of all herons.

The Squacco Heron is not a shy bird, and is among its own tribe very sociable and peaceable. The only note uttered by this bird sounds like the word *carr* or *charr*, which it only once repeats when frightened, or when it takes wing, although this it does very frequently without making any attempt at calling out.

Provided the Squacco Heron is taken from the nest, it becomes a very pleasing bird in a poultry-yard, on account of its beautiful plumage and harmless demeanour.

The Squacco Heron feeds principally on fish and frogs of small size, frog spawn, and water-beetles. Like others of its family, this species stalks noiselessly through bogs, for the

purpose of obtaining its food, where it generally finds abundance.

It has been stated before that the Squacco Heron is fond of the company of large droves of swine that are kept in Hungary; and this may be accounted for, because the swine, lying about certain swampy places during hot weather, make holes in the soft soil, wherein fish of small dimensions remain lodged during the rise and fall of the neighbouring waters, and to such places the Heron resorts and obtains its finny prey with more ease, as the receding waters have naturally left behind many a fish. The present species only goes in search of food during the day-time, in which it differs materially from the bitterns. It does not appear to hide itself at any time from fear, but when the wind blows strong it seeks for shelter, in order to preserve the silky ornamental feathers of the head, neck, breast, and back, from damage.

Many particulars of the history of the Squacco Heron remain still uninvestigated, in consequence of the want of due encouragement to obtain the necessary particulars; hence their manners during the breeding-time, and the colour of their eggs, remain unknown.

In some parts of the continent of Europe they certainly do breed, but the residents of those parts are either too indifferent on the subject, or the stricter laws of those countries prevent any individual from carrying a gun, or trespassing on the limits where the reproduction of the species takes place. It is to be hoped that we shall have this matter at some time investigated, when we shall probably learn that the nest is placed on the ground, or on the remains of last year's flags, because the young birds of the species that have been captured have been always found on the ground. The most probable locality for the nest and eggs is in Hungary, on some of the swampy islands of the Danube.

The entire length of the Squacco Heron is seventeen inches: beak two inches six lines from the forehead to the tip; tarsus two inches; unfeathered part of the tibia nearly one inch; middle toe, including the claw, two inches seven lines; tail three inches; wing from the carpus to the tip nearly nine inches.

The feathering of the forehead and crown is yellow streaked with black. A pendant crest falls from the occiput, of eight or ten long and narrow white feathers edged with black. The throat is white; the neck, breast, upper part of the back, and scapulars pale orange cream-colour; middle and lower part of the back ferruginous chestnut; (these feathers are tinged with purple, and are long and loose, reaching almost to the tip of the tail;) the rest of the plumage white. The beak is bluish green, with a black tip; lore and orbits greenish; iris yellow; legs and feet are oil yellow, tinged with bluish green.

PLATE CLXVIII.

BITTERN.

ARDEA STELLARIS.

The Bittern is a very well-known species in Great Britain, and is found in most parts of the temperate zones: in Europe it is most plentiful in the countries of Turkey and Greece, in Galicia, Hungary, Italy, and Spain; it is common in France, and frequent in Holland. The bird remains sometimes through the winter with us; but this is not often the case, and we consider it therefore as a migratory species retiring southward in September and October, and returning to us in March and April. It appears as if the Bittern migrates singly, and generally during the night, for its well-known call-note may frequently be heard on a still autumn evening, and sufficiently repeated to enable the hearer to judge in what direction the bird travels, and whether there is more than one on the wing.

The places to which the Bittern generally resorts are extensive swamps, covered with water plants of the larger kinds, or osier plantations, provided they are not much frequented by mankind. It happens very rarely that the Bittern is seen in any open spot, so as to be exposed to view, but the taller flags and rushes are its favourite haunts, among which it stands, squats, or walks about. Although the Bittern may prefer bogs to dry land, we know of several instances where



the bird has been seen at a distance from either water or bog. One of these was the specimen from which our drawing was made, which was shot in Burwood Common, near Walton, in Surrey: this spot or waste is covered with furze-bushes and heath-plants. This specimen is in the collection of John Fletcher, Esq., of Ruxley Lodge.

That the Bittern has often been the unconscious hero of a ghost story we think very probable, as no bird is better calculated to perform the part, and the scene of a village ghost tale is generally some lonely bog or marsh: we know a case in point. Three little boys went down, one evening, to a bank-side, where they had previously found a bird's nest containing eggs, of whose species they were ignorant; and they hoped, by surprising the little bird on her nest, to ascertain what they were. It was a dark evening in May. When they had stealthily reached the spot, and one of the little fellows was carefully stretching out his hand to seize the prize, they were startled by the appearance of a black object close before them: as they gazed for a moment upon it in much trepidation, it suddenly turned white with a rustling noise, and growing taller and taller, vanished from their sight. Their alarm was so excessive, that, forgetting the object of their visit to this lonely spot, they took to their heels, and rushed towards home with the greatest precipitation; and when arrived within the friendly shelter of the kitchen, neither of them could tell by which gate they had entered the garden, nor how they had avoided the pools and broken banks by which their road was intersected! One thing alone they were all certain of—they had seen a ghost! On returning to the spot the next morning, the footstepss of a Bittern were found perfectly imprinted in the clayey soil.

The Bittern rarely perches in a tree, unless its arrival with us in the spring takes place before the water plants have grown tall enough for shelter, in which case it is obliged to

be satisfied with the shelter that trees afford, the head of a pollard tree being convenient for that purpose.

The colouring of the Bittern's feathers, and its habit of standing immoveably still when any person approaches the spot where the bird happens to be, aid it very much in hiding from or deceiving the enemy; and all contribute to make the Bittern appear to be nothing but a dead rush or flag; and the soft feathers also blow about in the most wayward shapes. The position in which the Bittern usually passes the day-time among the flags is very unbecoming: the bird sits squatted on its haunches, with the body erect, the neck, head, and beak pointing straight up in the air; and when any person walks round the spot where the bird sits, it generally turns itself on its haunches or feet, so as to face the enemy continually, but no other part is moved in the least degree; thus it allows the intruder to approach very near before it takes wing.

The manner in which the Bittern moves its long neck is very remarkable: owing to the profusion of loose feathers all down the neck, it is not visible how the long neck is folded up in drawing it close to the body and extending it again immediately. When the neck is drawn close to the body, and the head and beak lie in a horizontal line on its back, the whole bird looks a clumsy thick lump of feathers, and it may well startle any one who has never met with a Bittern in a wild state, to see it lengthen itself on a sudden when in the act of flying up. The attitude in which the Bittern shews itself to the most advantage is when it is in a passion, or under great excitement from fear; under such circumstances it faces the danger with half-open wings, and holds the tip of the beak in readiness for the onset, while the loose plumage of the neck is raised, and the head feathers erected so as to form a perfect circular crest. The eyes of its opponent, whether man or beast, are then the

usual aim. When the Bittern happens to be winged, it throws itself on its back and defends itself with its strong feet.

The Bittern walks very slowly and with much caution, not only in search of food but also for the purpose of considering the surface and depth of the water or soft mud.

The flight of the Bittern resembles that of the owl, in its arched wings and noiseless progress.

It is very remarkable how the Bittern disentangles itself from among the strong thick rushes, so as to gain room to open its wings. The way in which this is managed is by grasping the rushes with its long toes, and thus climbing to the more pliable foliage of the plantation. The practised sportsman can always hear the crashing of the rushes before the Bittern appears in sight above them, when it is also necessary that he take his aim and fire directly, because the bird throws itself very soon again among the rushes at a little distance, when it is no easy matter to make it flush a second time. The Bittern is at all times careful to avoid exposing itself to the view of men, and knows too well that its safest retreat is among the rushes that grow tall and thick, from whence it is a difficult matter to scare it away, for the ground or bottom of these situations only admits dogs to hunt over it, when the Bittern has the advantage of mounting out of the dog's reach by climbing the rushes. During the daytime the Bittern does not shew itself of free will.

The nature of the Bittern is spiteful and unsociable, not only to other species, but to its own, in consequence of which more than one pair is seldom found in the same swamp, unless it is of very great extent. The adult male Bittern is notorious for its inexplicable call-note during the breeding-time ; it is only to be compared to the bellowing of a bull at a distance, and can not be described in a better manner than by expressing the words *u-proomb ;* and this is repeated very

often in a slow and lengthened strain, and has a very unpleasant sound. When the Bittern flies it utters the harsh croaking call of *craw*, *craw*, but only during the night.

It is a fruitless attempt to tame a Bittern, whether captured old or young; although, with great care, a bird obtained young may live for a few years in confinement.

The Bittern feeds in a natural state principally on fish, frogs, beetles, mice, and young water-fowl, and also on small birds that come within its reach. Among other prey the Bittern consumes numbers of leeches, snakes, and worms.

The Bittern breeds among the rushes and deposits from three to five eggs in a nest that is placed upon dry rushes a little above the ground, or above the surface of the water. The female only attends to the incubation, while the male waits upon her and carries her food, and regales her with his awkward notes. The young brood do not require the aid of the parents long, and, as soon as they are able to take care of themselves, the parent birds leave the spot where the young were hatched, and the young disappear soon after, and each bird takes apparently its own road, most probably southward.

The Bittern measures about thirty inches in length; the wing, from the carpus to the tip, about thirteen inches and three-quarters; the tail nearly five inches; the beak measures three inches from the forehead to the tip. The legs are thick and short in proportion, the toes very pliable; the tarsi four inches long; the middle toe four inches and three-quarters, including the long claw.

The colouring of the feathers is as follows:—Top of the head black, with green reflections; the entire plumage ochre and sienna yellow, with the exception of the chin, which is white. The feathers of the head, neck, back, rump, and tail are most beautifully pencilled with black; the sides of the neck and under parts spotted with the same colour; the centres of

most of the feathers of the upper parts are stained with rust-colour, strongest on the outer webs of the primaries. The beak is yellow horn-colour; the orbits and lore greenish; the iris yellow; the legs grass green, the claws horn-colour. The male and female are much alike: the young nestlings are at first covered with an orange yellow down.

The egg figured 168 is that of the Bittern.





PLATE CLXIX.

LITTLE BITTERN.

ARDEA MINUTA.

The Little Bittern is an occasional visitant in England, most probably coming to us from Holland, where it more frequently occurs than in other parts of Europe under the same latitude. This bird belongs, in fact, to the south and south-eastern countries of this quarter of the globe, such as Turkey, Greece, the south of France, Spain, &c. In Asia it is plentifully distributed over Persia, Syria, and Arabia; it is also found in Africa. In Sweden it is very rarely met with; and further north it does not appear. This bird migrates in spring and autumn, choosing moderately warm weather, and avoiding cold and frost. It does not commence its northward course earlier than the latter part of April, nor is it usual to meet with one of this species later in the year than September. It is, moreover, believed that this Bittern is so sensible of cold, that it does not remain on the European side of the Mediterranean during the winter, but crosses over to the opposite coast, performing its passage singly and during the night.

The localities preferred by the Little Bittern are muddy swamps that surround ponds or border rivers, lakes, inland seas, and springy bogs, provided they are overgrown with reeds, flags, rushes, or osiers. In open pieces of water the present

species does not by preference reside : and its smaller size, by facilitating its movements among the overhanging and mingling foliage of water-plants and willows, enables it to secure the shelter and retirement that it seems by nature to prefer.

Another proof that the Little Bittern is afraid of cold, is, that it is never seen to frequent water shaded by large trees, by high banks that keep off the rays of the sun.

In one respect the Little Bittern differs greatly from the common species, namely, in its perching very frequently on the branch of a tree, particularly in the spring of the year; choosing, however, a well-covered branch, situated not far from the stem.

To supply the wants of life is the occupation of this species during the night; and while day lasts the Little Bittern remains concealed in the swampy, steamy cover of the rushes and other herbage that the locality affords.

It is a matter of surprise how the Little Bittern puts in practice one of its frequent habits, namely, that of climbing or running up and down a perpendicular branch of a tree, with as much ease as if it walked on the ground. The necessity of placing its feet in a line makes the circumstance unavoidable of crossing its legs at every step, while the formation of its feet is apparently adapted only for the purpose of wading. The length and pliability of the toes and the arched and sharply pointed claws materially aid this bird in retaining its hold.

The flight of the Little Bittern is different from that of others of its family, being performed with stronger and quicker motions of the wings : it does not fly high in the air during the day, but only high enough in general to clear the vegetation among which it resides. When in the act of taking flight, this Bittern flutters quickly with its wings; but when alighting it throws itself, as it were, to the earth, only

breaking its fall, when close to the ground, by expanding its wings.

The Little Bittern is very artful in keeping itself out of sight, and also in deceiving the greater number of its enemies, when in an unsheltered spot, by placing itself in a stiff, unnatural position when it perceives the approach of danger, in which it remains so immoveable, and for so long a time, that, when it is at last obliged to take wing, it flies up with such unexpected noise, that the sportsman is generally too much taken by surprise to avail himself of the opportunity of firing, until the bird has attained too great a distance to be shot; and, when concealed among reeds, rushes, or other herbage, it is with the greatest difficulty that it is made to start; and to effect this purpose frequently requires much exertion and perseverance.

The best time to get a sight of the Little Bittern is towards the evening, owing to its habit of coming forth of its own accord at that time; but to reach, unperceived, a hiding-place for the purpose of lying in wait, the greatest caution is required when approaching the spot supposed to be frequented by this species.

The nature of the Little Bittern is much in unison with that of the larger species, being fierce, courageous, and very quick in its movements, and, when hard-pressed, fighting to the last for its life; in which case the eyes and exposed parts of its opponent are sure to receive the blows of its beak, aimed with incredible precision.

The call or cry produced by the male bird resembles that of the Bittern greatly, but is by far weaker in comparison.

The little Bittern is very amusing when tame, owing to its various grotesque attitudes; but much trouble is required in taming it, and it can only be done when very young.

It has been stated that the Little Bittern feeds principally upon water-insects; but we are assured by a very trustworthy

observer, who had killed and dissected many specimens, he never found anything but fishes in the Little Bittern's stomach. When in confinement this bird will soon accustom itself to feed on large fish cut in pieces, raw meat, or boiled potatoes, worms, young frogs, &c. Clean water for bathing is a great requisite.

The reproduction of this species takes place more frequently in our latitudes than is generally believed, but the great caution of this cunning Bittern usually prevents detection.

The nest is variously placed; sometimes near the water, sometimes at a distance, but is generally found where flags grow in sufficient quantity. It is built on the broken stalks of reeds or flags, a little above the water-mark, or on the over-hanging boughs of a willow. The structure is made with the materials that always abound near at hand, such as rushes, dry willow twigs, flags, and grass, &c., and forms a thick and shapeless mass, in which are deposited four, and sometimes five, plain, white eggs; and after the bird has sat from sixteen to seventeen days on them, the downy young brood come forth. Both parents carry the food to their offspring in their crops, and disgorge it on the edge of the nest, from whence the nestlings help themselves as their appetite requires. If the young brood continue undisturbed, they remain long in the nest; but if they are molested, they hurry out and cling to the rushes, being fully capable of climbing up and down in the same manner as the parent birds. As soon as the young can help themselves, the parents leave the breeding-place, and are no more seen in the neighbourhood for the remainder of the season. While the female sits on her eggs she can hardly be driven away, and remains not only close to the spot, but runs up and down the rushes in the greatest excitement, continually uttering her alarm-note, *gaek! gaek! gaek!* while the male bird watches the scene from his hiding-place.

The measurements of the Little Bittern are as follows:— Entire length nineteen inches; the wing, from the carpus to the tip, nearly six inches; the tail two inches.

The top of the head is black reflected with green; a streak over the eye yellow; the chin white; the cheeks, neck, sides of the neck, and loose feathers of the breast ochre-yellow, the latter tinged with violet; the crop and front of the throat pale ochre-yellow; some elongated feathers on the sides of the upper part of the breast margined with dusky and rich brownish yellow; the remainder of the under parts yellow; the under tail-coverts and inner sides of the thighs whitish. The shoulders, back, rump, and tail-coverts are black with green reflections; the spurious wing partly black; the greater and lesser wing-coverts are ochre-yellow; the quills are dusky. The beak is rich gamboge-yellow; the iris gold-yellow. The legs and toes are transparent grass-green; the soles of the feet lemon-yellow; claws dusky.

The egg figured 169 is that of the Little Bittern.



PLATE CLXX.

AMERICAN BITTERN.

ARDEA LENTIGINOSA.

The American Bittern is a rare visitant in Great Britain, but is, as its name denotes, an indigenous inhabitant of America, migrating northward on that continent, for the purpose of breeding, as far as the Hudson's Bay about the month of May, and retiring southward to pass the inclement winter season in milder regions. Selby states, in his "Illustrations of British Ornithology," that the specimen which is now in the British Museum belonged to Montagu's collection, and was shot in the parish of Piddleton, in Dorsetshire, in the autumn of 1804.

Our drawing was made from the same specimen, which was at the time in good preservation.

The locality chosen by this bird is similar to that of our Bittern, namely, banks of lakes, rivers, and ponds, where reeds and rushes give the bird shelter during the day-time and food at night; for, like others of its family, this Bittern sleeps during the day in thickets of water-plants, and feeds undisturbed during the dark hours of the night, at which time fishes come to the shallows in search of their own food, and thus afford him an abundant supply.

The sound uttered by the American Bittern is generally reported to be like a tap on a drum twice or thrice re-

peated. The American Bittern breeds, like other species, among the reeds and other water-plants that grow in swamps and bogs: the eggs are stated to be in colour pale Prussian green.

The entire length of this Bittern is twenty-seven inches from the tip of the beak to the extremity of the tail. The beak is yellow, with a dark horn-coloured ridge on the upper mandible; the lore green; the iris reddish yellow. The feathering on the head is black, with green reflections; from the corner of the mouth a black mustachio extends to below the cheeks and ear-coverts. The ground-colour of the entire plumage is yellowish buff, except the chin, which is white. The face, nape, neck, and upper parts are pencilled with black, and the centres of the feathers are rufous olivaceous brown; the zig-zag pencillings on the under parts are more distant and finer. The quill-feathers are bluish-purple, shaded with dusky. The legs are oil-green; claws dusky horn-colour.



PLATE CLXXI.

THE NIGHT HERON.

ARDEA MYCTICORAX.

The Night Heron, an occasional visitant in Great Britain, is a very interesting bird, but, owing to its nocturnal habits, little known. It is found in most parts of the world, migrating in a northern direction during the months of April and May, and in a southern direction again in September and October.

The locality usually preferred by this species differs materially from that chosen by most of the Heron tribe, being swamps and brooks in wooded, instead of open districts. Here the Night Heron passes most of its time, and roosts on the branches of the trees, only moving stealthily about when in search of food. When on the wing its flight is noiseless, like that of the owl.

Our drawing was made from a fine living specimen in the Zoological Gardens in the Regents' Park, London ; at which place there have been many individuals, received from divers places, both adult and young.

In their plumage the male and female do not differ materially, but that of the young birds is so very unlike their parents, that many mistakes have originated from the dissimilarity, which has induced some authors to consider them a distinct species.

In its nature the Night Heron is timid, distrustful, and shy, passing the whole day among the thickest foliage of trees and shrubs, perched immoveably on a branch. When the bird is startled from its roost, it does not fly to any great distance, but to the most convenient concealment, of the same nature as the one it has just vacated. During the day it never flies about, unless provoked to do so.

This species is not sociably inclined, and hardly ever met with in company, even in pairs. In migrating, also, the Night Heron travels singly, and generally during the night: this can be ascertained in a clear evening in autumn, when the often-repeated, hoarse call-note (*cowow*) is uttered in a loud accent, high in the air; and if there is, by chance, more than one bird on the wing, each individual speaks for itself, plainly enough acquainting the listener of its presence.

The Night Heron, when kept in confinement, usually sits in a dull and heavy posture, as represented in our plate, until night calls its powers into activity.

The food of the Night Heron consists of small fish, frogs, water-beetles, and leeches; it also devours worms.

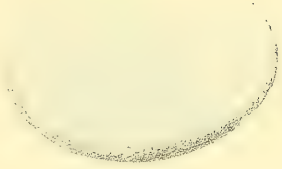
In some of the western countries of Europe the Night Heron breeds plentifully, and occasionally even on the borders of the Baltic. The nest is more generally placed in the head of a pollard or in the branches of a forest tree, than elsewhere; not in the highest branches, like that of the common heron, but about midway. The nest itself is a large, flat fabric, composed of sticks and twigs, and lined with reeds, rushes, grass, and leaves. In this receptacle four or five eggs are deposited; but, owing to the bird's habit of keeping much out of sight, many particulars of this part of its history still remain unknown.

The entire length of the Night Heron is nearly two feet; but, in consequence of its sitting with its neck shortened or contracted when in a state of rest, it appears of less dimensions.

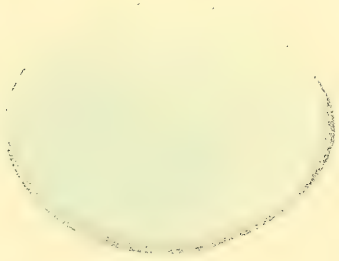
The beak is yellow at the base, and dusky at the tip; the lore and orbits bluish white; the iris deep orange. The top of the head, nape, back, and scapulars are black, reflected with green. The lower part of the back, wings, rump, and tail are pearl-white; all the under parts are pure white. Three long, barbed, white feathers proceed from the nape. These feathers are of great beauty, and of peculiar form: the shafts are very slender and delicate, yet of sufficient strength to enable the bird to erect the feathers at pleasure; their curious form also confers a stiffness, that, on account of their great delicacy, they could not otherwise possess, the webs being not placed on a level or presenting a flat surface, but inclined downwards on each side, like the roof of a house. The feathers themselves are situated one above the other in a line, the ridge of the lower fitting closely into the hollow under surface of the one above. The upper feather of the three is the longest, and sometimes measures about eight inches.

The young bird of the year has the iris brown. The parts which are black in the adult are in this state brown; and those parts that are white in the adult are cinereous brown, with white spots. The back and shoulders are also spotted with dull white.

The egg figured 178 is that of the Night Heron.



170



171



PLATE CLXXII.

STORK.

CICONIA ALBA.

The Stork is an occasional visitant in Great Britain, in the course of its annual migration towards the north: and it appears remarkable that this bird does not visit us more frequently, since it is very common in Holland and other countries that face our eastern shores, as far north as Scotland. Whether the Stork does not by preference fly across the sea, or whether the locality is not sufficiently adapted to its habits, are questions hitherto unanswered. The first supposition is strengthened by a well-ascertained fact; namely, that Storks bred in Europe sojourn during the winter months in Egypt: and why these birds, which are common all along the northern shores of the Mediterranean, should not cross that sea at all points during their autumnal migration, appears otherwise unaccounted for.

In order to ascertain where the Stork passes the winter, various birds have been marked with a ring round their necks, bearing the name of the town of which they were citizens and the date. Most of these birds have arrived in Egypt, and returned to their native place again year after year.

The Stork is distributed over the greater part of Europe, as far north as Sweden; and over Asia, from the southern provinces of Siberia southward; and in an eastern direction as far as Japan. In Africa it is also plentifully met with.

We have had so many opportunities of observing the habits of the Stork in Holland, that we are enabled to give a full account of this ornamental and cherished bird, whose person is in that country held sacred.

The chosen locality of the Stork is low and marshy pasture-land, intersected by ditches, canals, rivers, and lakes. Here this bird may be seen, either stalking about the meadows, or standing on one leg by the water side, watching the approach of its finny prey, or ready to pounce upon some luckless frog or unwary bird.

The Stork is by nature far from shy; and the respect in which it is held very much increases its confidence, making it, as it were, a domesticated inhabitant on every farm. Superstition has a great deal to do with the kindliness with which men regard the Stork in Holland, since it is believed that good-fortune forsakes the farmer when these annual visitors do not return. The birds, thus sure of a welcome reception, and also of finding protection and plenty of food, are not likely to neglect to return; and we have never known a single instance of this bird being shot at, or wilfully killed, by any person on the Continent of Europe.

The Stork almost invariably chooses an elevated object on which to place its nest: in many parts of Holland it is a very common thing to see a Stork's nest on the top of a chimney of a farm-house; or on a tall pole placed near the farm-yard, which is year after year kept standing, properly repaired, and supplied with a flat piece of board on the top, for the sole purpose of receiving the nest of the pair that annually return to inhabit it.

The food of the Stork is, as before mentioned, principally fish, reptiles, and small birds; and as there is hardly a country where these can be found in greater plenty than in Holland, it is no wonder that it thrives so well. Many a time have we seen the Stork rise from the ground with a live eel in its

beak, and flying off, drop the eel again and again until it was rendered ready to be devoured. In some of the larger towns of Holland, where they can boast of having a fish-market, a pair of Storks may constantly be seen walking about the market, where they live upon the refuse of the fish, and are consequently of great use as scavengers.

In addition to the above-named situations for the nest of the Stork, we may mention church-steeples, turrets, and ruins. The nest itself is larger than that of the swan, and the materials employed in its construction consist of dry sticks, straw, &c. In it the female deposits her three or four eggs, which are usually in form and colour as represented in our plate; and after a month's incubation the young birds come forth.

A very curious anecdote was recorded some years ago in a German newspaper, which strongly illustrates the wonderful parental affection of this species for their young. A house, on the top of which was a Stork's nest containing young birds, took fire. In the midst of the conflagration the old birds were seen flying to and from the nest, and plunging into a neighbouring piece of water, in which they soaked their feathers, and returning again and again to the nest, sprinkled the water over their young in such abundance, that they not only preserved their young ones, but saved from destruction that part of the building on which the nest was situated.

This species can easily be kept in confinement; but there is no great inducement for keeping them, on account of their great voracity, and their fondness for young fowls and ducks. They also require much water, and their size demands a greater reservoir than can well be supplied in the ordinary way. When the Stork takes a piece of fish or meat from the ground, it invariably washes it before consuming it.

This bird is in the habit of making a peculiar noise with its beak, by beating the upper and under mandibles together

with great force and rapidity. The sound can only be compared to that made by drawing a stick across the teeth of a wooden rake. This noise is most frequently heard when the Stork sits on its nest, and is performed alike by the male and female: the young birds acquire it also as soon as they are fledged. This noise is kept up for a length of time, and is also performed while the bird is flying about. We have never heard any call-note uttered by the Stork, and the only sound the bird produces, besides beating its mandibles together, is a hissing whine, like the goose, and is chiefly uttered by the young birds when in fear.

There is a great deal of tender attachment manifested by the Stork towards its mate and young brood, which extends itself to its protectors and keepers when in a state of confinement or domestication. But if a bird of this species is ill-treated or insulted, it will revenge itself on the first opportunity; and if hurt, it will fight manfully and stand to its cause with its life. The blows of the powerful beak of the Stork are not to be trifled with, and are generally well directed and dangerous; the eyes of its antagonist being aimed at with great precision.

The entire length of the Stork is full three feet and a half. Its beak is red; the naked skin forming the lore and orbits deep black; iris deep burnt umber colour; the head, neck, back, breast, belly, tail, and under tail-coverts, and upper half of the wings, are pure white; the greater wing-coverts, secondaries, tertials, and quill-feathers are all deep black: the legs and toes are red. There is no difference in the plumage of the male and female; but the young birds of the year have their black feathers obscured with a dusky colour, and their beaks and legs are rusty brown.

The egg figured 172 is that of the Stork.



PLATE CLXXIII.

BLACK STORK.

CICONIA NIGRA.

The Black Stork has, in a few instances, occurred in Great Britain, and must, therefore, be considered as an occasional visitant with us, although very rare. It is probable enough that many birds even now considered rare might be found to be less so, if the captors knew the value of birds unknown to them. We have this day met with instances of parties killing rare birds, and burying them in oblivion, for want of knowing better. One of these birds was a little bittern, which was shot by a shoemaker's apprentice, near a pond, in Hampshire, who, after having obtained the bird, gave it away to a friend, and it was allowed to return to dust in the most natural way. The second instance was that of a wood sandpiper, which was shot on Ditton Marsh, in Surrey, by a bird-catcher, who sold it for a trifle, and neither the buyer nor the seller knew their prize.

The Black Stork is not only found in most countries where the white species is known to occur, but also in parts where the white stork is unknown. In Europe it is a visitant during the summer months in most parts, and extends as high north as central Sweden. In Holland it is rare.

In Asia it visits Siberia, and coming there from the south,

extends over most parts of Persia and Syria. In Ceylon and Java it is not uncommon. In Africa it ranges from the Cape of Good Hope to the Mediterranean. In America it is also found; and St. Domingo, Martinique, and Trinidad are its constant abode.

This species does not seem to be exclusive as to locality, inhabiting equally countries that are mountainous or level, covered with forests or only here and there studded with plantations or single trees. Water, in the form of rivers, lakes, ponds, and the like, is requisite for the purpose of supplying its necessary food. Like the other species of this family, warm and mild weather is preferable, although the Black Stork remains later in the autumn in the colder countries than most others. The Black Stork arrives in Europe from the south in March, and returns in September and October. Their migration takes place during the day, and at a great elevation in the air.

The Black Stork is not, like the white species, partial to the society of mankind, but, on the contrary, avoids their presence; thence, also, the reason why it is not so frequently observed.

In the spring of the year the Black Stork retires to the cover of woods and forests, in the vicinity of swamps, springs, ponds, or ditches. In dry woods, distant from water, this bird does not locate; neither does the present species care for salt water, but rather frequents the banks of rapid streams. The Black Stork roosts on the branch of a tree, even if it is obliged to fly a great distance in order to obtain such a convenience. Even during the day-time it perches, after having tired itself in its usual vocation, although this is chiefly observed to be put in practice by a lonely bird. The branch chosen for a perch by the Black Stork is a strong leafless top-branch of the oldest tree in the wood or forest; and about the time of migration there may be several of them seen

seated in like manner close to each other. It does not appear to be in the nature of the Black Stork to conceal itself among thick foliage when on a tree, nor among rushes and herbage when on the ground, as these birds are sure to expose themselves to view in situations where they are annual visitors; for instance, on the banks of the Elbe, in Germany, &c.

When on the ground the Black Stork goes about in the same sedate, slow, and cautious manner as the white stork, and rarely runs. Its position when standing by the water's edge is not very graceful, owing to its habit of lowering its wings, and resting its head on its back, apparently in the most unhappy mood: it is supposed that the bird awaits thus the digestion of its food. We made the same remark when drawing the likeness of the fine specimen in the Zoological Gardens in the Regent's Park; but it not being necessary to draw likenesses in the most unbecoming positions, we have taken the liberty to represent the bird when aroused to the act of walking. When about to take wing the Black Stork takes one or two short leaps; and when alighting it skims a short distance before touching the ground, and places its wing-feathers in order before it moves on further.

By nature the Black Stork is shy, watchful, and wild,—far different from the foregoing species,—avoiding at all times the sight of men and their habitations. The adult bird is not even sociable among its own species, nor will it endure the presence of another individual or pair within reach of its district during the breeding-season, when a pair have chosen a spot for their residence. When more than two Black Storks are seen to arrive during migration in a convenient spot for roosting, they generally prove to be young birds of the year.

The young of the Black Stork utter a noise not unlike that of the white stork; but the adult birds are only known to rattle their mandibles together like the foregoing species,

and do this most frequently during the breeding-season, and while they have young ones; at other times it is seldom heard.

The specimen from which our drawing is made proves the possibility of keeping the species in confinement for many years. Success depends, however, on circumstances, in consequence of the wilder nature of the bird.

In a wild state the Black Stork feeds on fish and snakes, frogs, mice, moles, beetles, grasshoppers, worms, and many other insects; small birds and young poultry, if opportunity offers. It goes constantly in pursuit of the unfledged young of water and land birds that are to be found on the ground or near the water.

The Black Stork has not been known yet to breed in this country, but it does so in several parts of the European Continent. When a pair of these birds make arrangements in a woody district for building their nest, they choose for the purpose a lofty tree that commands the view of the district, or one that stands on the edge of a wood, from whence the surrounding country can be surveyed: in most instances an oak seems to be preferred, and to it the same pair return annually, unless some accident intervenes. The nest is placed on the strongest horizontal branch in the top of the tree: the foundation is made with sticks and large pieces of wood; the next layer is of smaller sticks; and the inside is then plastered with earth and clay, and finally lined with rushes, feathers, hair, and all sorts of suitable refuse that can be found in the fields. The nest is a very large structure, and remains in a fit state for many years; but, owing to the effects of wind and weather, it has to be repaired and trimmed up every spring.

The number of eggs varies from two to four, and even five. In a collection of eggs, those of the present species can not be distinguished from those of the foregoing, in con-





sequence of the rapid fading away of the pale blue tint with which the eggs of the Black Stork are tinged. The time of incubation is eight and twenty days. The young of the Black Stork are not entirely full grown and properly developed before the third spring.

The entire length of the adult Black Stork is about three feet six inches from the tip of the beak to the extremity of the tail.

The plumage of the present species is of closer texture than that of the white stork, and more glossy.

The beak is from seven to eight inches in length: the legs are from twelve to fourteen inches from the ground to the top of the naked part of the tibia; the middle toe, including the claw, three inches and a quarter to four inches; the hinder toe, including the claw, one inch four lines to six lines.

The colour of the beak, regions of the eyes, and legs is bright vermilion red in adult birds, and oil green in the young; the joints between the scales of the legs appear chalky, as if they were fixed in with mortar. The head, neck, back, wings, rump, and tail are black and dusky: all this plumage reflects metallic colours in brilliant tints. The lower part of the breast, belly, vent, and under tail-coverts are pure white; the iris dusky brown.

Between the male and female there is no material difference, but the young and immature birds differ in many respects; their feathering is duller in colour, less reflected, and the beak and legs are bluish green, instead of red; and the iris is more grey than brown.

The egg figured 173 is that of the Black Stork.



PLATE CLXXIV.

SPOONBILL.

PLATALEA LEUCORODIA.

The Spoonbill, although now only an occasional visitant in England during its periods of migration, was formerly a regular summer visitant, breeding in society like our herons, and it appears, also, associating with them in their breeding-places.

The last notice we find mentioned of the appearance of the Spoonbill in England is in a note in the twefth number of the "Zoologist," contributed by Edward Hearle Rodd, Esq., who says, "On the evening of the 13th instant, a flock of eleven white Spoonbills was seen to fly over Hayle, in the western part of Cornwall; they were at length observed to alight in some marshy ground in the parish of Gwithian, on the north coast, a little to the eastward of St. Ives. Seven of them were shot, four of which I have had an opportunity of examining; and in their general appearance they display a more adult cast of plumage than either of the two Cornish examples which I have succeeded in obtaining before. The plumage of those at present under notice is free from any impurity in its whiteness, and there is a roseate blush observable in some of the dorsal feathers towards their roots, this tint being especially apparent in, and, as it were, radiating from, the shafts of the feathers. Some of the specimens possess a much more extended bill than others, the excess

amounting to an inch at least. The whole are without an occipital crest or dorsal plumes, and it may be a question whether those specimens having bills so much longer than the others may not be old birds in winter plumage. There is no yellow tint in any portion of the bills of any of the specimens; the colour being dark livid with a shade of flesh-colour."

The distribution of this bird extends over most parts of Europe as far north as Norway in the course of its summer migration. In winter it confines itself to the milder parts, such as Greece and Turkey. In Asia it is found; also in Africa from north to south. The country most frequented during the summer months is Holland, where the Spoonbill arrives in April, and from whence it departs in August, to avoid being overtaken by ungenial gales.

The localities most frequented by this species are marshes not far distant from the sea-shore, such as the mouths of the rivers Maas and Rhine, in Holland, where the ground is intersected in all directions by streams, pools, bogs, and swamps. The Spoonbill does not hide among the rushes, but prefers open banks, where a few large aquatic plants afford it shelter, in case of need, from wind and weather. In such places the present species may be seen at a distance walking about, or standing on the water's edge. Its pure white plumage gives the observer a good opportunity of watching its movements, which are graceful and elegant: whether the bird stands or walks about, it generally carries its slender neck in the form of the letter S; and the flowing feathers of the head in the adult bird enhance its beauty greatly when they are in any degree erected.

When the Spoonbill takes wing it holds its neck and beak in a straight line, and its legs the same in an opposite direction: its wings are spread out at full length, and moved in regular succession, but not quickly; it consequently seems as if the bird skims along. At times it towers up to a great

elevation in circling gyrations, even out of sight. When the Spoonbill migrates, it mostly flies in flocks ; and their mode of moving on is in oblique lines. The Spoonbill is a shy, careful, and distrustful bird, consequently not likely to be approached near enough for the purpose of killing it with a gunshot ; but, owing to its habit of feeding during the day-time and roosting at night, the best way to obtain a specimen is by lying in wait for it, or carefully approaching its roosting-place.

It is by no means difficult to tame the Spoonbill, and keep it in a poultry-yard, provided it is taken very young. This bird also rattles its beak like the stork.

The food on which the Spoonbill chiefly subsists is fish, although the formation of its beak seems hardly strong enough to kill or hold any but the very smallest. The remains of fish two or three inches in length have been found in its stomach. Soft kinds of worms, leeches, and aquatic insects also rank amongst its food, and the larvæ of fish and frogs, grasses, and roots of water plants equally belong to its food. In Holland, Hungary, and the south of France the Spoonbill breeds plentifully.

Where trees abound in the vicinity of the locality in which the Spoonbill resides, the nest is built in one of them ; but where no trees are at hand, the nest is placed in a willow stump, either upon broken rushes or on the ground. Where trees abound, the Spoonbill builds in the vicinity of one or more of its species, as these birds are very sociable among their own kind. The nest is constructed of sticks, twigs, and the leaves of rushes, and lined with some softer materials of the same kind. The eggs are in number two, three, and sometimes four. After the young are hatched they remain in the nest until they are able to fly, when the parent birds lead them to boggy ground, and soon after let them shift for themselves.

The Spoonbill measures about two feet seven or eight inches from the tip of the beak to the extremity of the tail. The entire feathering is white, the breast only tinged with yellow. The beak is black, barred with lead-colour; the tip yellowish flesh-colour. The legs are black. The iris varies according to age, from pearl white to deep red: the young have the white iris, the middle-aged brown, and the adult bird the carmine red. The ornamental feathers of the head become tinged with orange yellow in old specimens. The only difference between the male and the female is, that the male is the larger and stronger bird of the two.

The egg figured 174 is that of the Spoonbill.



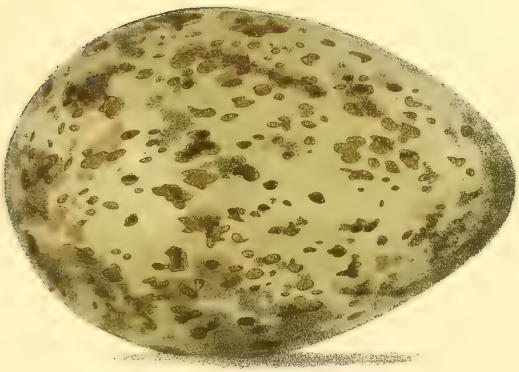




PLATE CLXXV.

IBIS.

IBIS FALCINELLUS.

The Ibis is one of our rare occasional visitants ; but, according to several authors, it has occurred in some instances not only as a solitary straggler, but also in small flocks. The chief residence of the Ibis is in warmer climates than our own, namely, the southern parts of Europe and Asia, all parts of Africa, and South America : in those countries this species is met with in numbers along the borders of lakes, rivers, and ponds, particularly on marshy and boggy ground. The nature of the soil along the Caspian and Black Seas suits the Ibis particularly well. It is also found in many parts of Persia, Syria, Egypt, Hungary, Turkey, and Greece, &c.

In Europe the Ibis is a migratory bird, arriving in March and April, and departing in August and September. The occurrence of the Ibis in Europe is not confined entirely to our latitude ; but, although more rarely, it has been met with in Norway, Sweden, and Iceland. Under what circumstances so many species of the feathered tribes wander out of their natural latitudes, must ever remain a difficult subject of investigation, particularly the present species, for instance, which is

not likely to pursue any insect on the wing, nor subject to be carried away by gales, although the latter is the most probable cause of its being found in unexpected places.

Although the Ibis is reported to breed in great numbers in the southern provinces of Hungary, no naturalist that we have met with has ever possessed one of its eggs, nor do any authors give even the dimensions of an egg of this species. We presume that in some instances they are protected by the prejudices of superstition, as in the case of the stork and the crane, whose eggs are hardly ever taken or disturbed on the continent of Europe, as well as by the want of interest that sportsmen of those countries take in the collection of eggs. Since no British ornithologist has as yet been able to give any account of the nest and eggs of the Ibis, we will subjoin some particulars from information we have obtained; and we hope that some spirited individual, who has time and means at his command, will take the hint to visit a country where many rare eggs of water birds may be obtained by merely seeking for them.

On the borders of Hungary, towards Turkey, great numbers of the Ibis breed in the extensive swamps that intersect that locality. Many nests of these birds may there be found placed on the ground one beside another. These structures are sufficiently well formed, of dried grasses, flags, and other portions of aquatic vegetation, to hold the two or three very pale green eggs that belong to this species, and are sufficiently strong to support the weight of the bird. The nests are placed on the broken reeds that grow on some raised protuberance of the uneven ground. While the female sits on the eggs, the male invariably stands not far off watching her, unless he is employed in bringing her food. The nestlings of the Ibis are covered with a brown down.

This is the account given by a gentleman who is an experienced sportsman of that country; and we are also informed that the fact of the Ibis breeding in that locality every year in great numbers is so familiar, that every child is aware of it. The flight of the Ibis is very peculiar, especially during its migration, when such numbers of them may be seen on the wing, that they are rarely to be counted; and each flock or flight moves on in a single string abreast, that is to say, they fly side by side, and so close together as almost to touch the tips of each other's wings. When the numbers are great, the string forms a waving line; if not very numerous, they keep a straight front. This peculiarity shews at once what birds they are, even if they fly too high to be in other respects distinguishable.

Some nine or ten years ago, late in September, we observed such a flight pass over Fairmile Common, near Cobham, in Surrey; the order, or line, in which they travelled, as well as their long arched beaks, drew our attention. We were not at that time aware that we were contemplating the flight of birds so rare, but took them for the more common curlew.

The food of the Ibis consists of aquatic insects and their larvæ, worms, beetles, crickets, snails, and muscles, small frogs and small fishes. The manner in which this species obtains its food is by wading among the black, soft mud of swamps, but not, or at least rarely, along any firm gravelly or sandy bank of lake, pond, or river; and they are not unfrequently led so far out of their depth, or footing, that they are obliged to swim or flounder back again in haste.

The nature of the Ibis is shy, and the bird is consequently not easily brought down by fire-arms; and the ground it frequents is only to be crossed with difficulty and danger, and hardly ever without water-boots.

The long legs of this bird enable it to wade, but they seem not to be adapted for running either fast or for any length of time. On the wing it is not only strong, but swift and graceful, its wings being expanded at full length, and moved with ease and in regular succession. Sometimes the bird will sail along for some distance, or soar in half-circles: it flies generally very high, and when it alights, it flaps its wings quickly as it comes near the ground.

The peculiar manner of this species when on the wing having been mentioned before, it remains only to be observed, that when a flock intends to alight, the line becomes broken: on reaching the chosen spot, the birds fly in all directions in great confusion, sailing about and alighting one after another in quick succession. It is equally beautiful to see the flock take wing in the same wild confusion; but in a very short space of time the line is formed, and raised high in the air, during which the length increases by one bird after another taking its place right and left, and thus extending or increasing the line until they move off in this peculiar frontal line. The only note produced by the Ibis is the syllable *wrah!* which it utters when surprised or frightened.

The adult male Ibis measures from twenty-seven to twenty-eight inches in length from the tip of the beak to the extremity of the tail; the wing, from carpus to tip, thirteen inches; the naked part of the tibia, two inches and a half; tarsus, four inches and a quarter; middle toe, including the claw, three inches and a quarter; hinder toe, one inch and a half.

The colour of the head, neck, upper part of the back, and all the under parts, is a dark red brown of great depth of colour; lower part of the back, rump, wing-coverts, primaries, and tail, dark brownish green, with reflections of bronze

and olive : the beak and legs are dull green ; lore and orbits paler green ; the iris brown.

The female differs in mature plumage only in size, being smaller than the male, and in being less brilliantly coloured.

The young birds of one or two years old are smaller in size, and the brown feathering of the head, neck, and under parts not only more dusky, but mottled with white, owing to the tps of the feathers being edged with that colour.

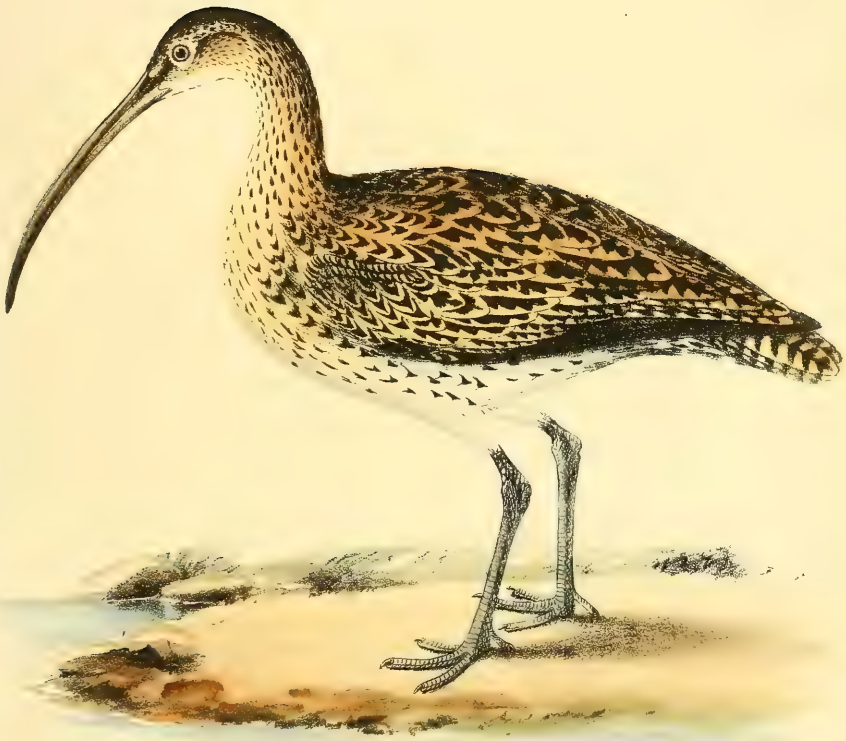
PLATE CLXXVI.

CURLEW.

NUMENIUS ARQUATA.

The Curlew is of frequent occurrence in Britain, not only on the sandy sea-coast, but, during winter, on flooded meadows along the banks of rivers and ditches. In our neighbourhood (Chertsey) we hardly ever go out in winter in search of birds, but we are greeted by the shrill note of this visitant, while it repeats its own name (*curlew, curlew!*) in a tone approaching very near to a whistle. The distribution of this bird is very general over Europe and Asia, particularly along the sea-coasts: it is also found on the northern coast of Africa; and, according to most ornithologists, it is met with in the East Indies. Temminck informs us that it is captured in Japan and the Indian Archipelago. Many travellers have seen the curlew in summer in very high northern latitudes, such as Siberia, Norway, and Lapland.

The Curlew is migratory, inasmuch as it travels northward to breed in the spring, and returns southward in autumn to pass the winter in more temperate climes; but some individuals remain the whole year with us, where the locality suits them. During its migration the Curlew journeys in small flocks of from five to ten over the midland counties, but along the coast in larger numbers, according to circumstances; flock after flock uniting as they pass over the ground. They gene-



rally fly very high in the air during the day, but lower as the night comes on; and when thus proceeding they fly in an angular line. The locality chosen by the Curlew is, as before named, either the sea-coast or some low, marshy, and open meadow, and also extensive heathy moors or commons; and owing to this propensity of frequenting exposed places, it is with the greatest difficulty that one can approach it sufficiently near to get within the range of a gun. It is a very easy matter to know the presence of the Curlew, in consequence of its continued cry when on the wing; and by watching where the bird alights during cold, stormy weather, and walking up to it against the wind, the newly invented wire cartridges may enable a sportsman to shoot it on the ground. We have often seen one of this species perch in the top branches of some lofty elm or beech trees that border Chertsey Mead. The Curlew walks with great ease on the ground, with long or moderate strides according to pleasure, and wades, as a matter of course, not only along the edge of the water, but up to its belly. It is equally able to swim if required, although this is not of frequent occurrence, neither does the bird seem to be enabled to encounter any strong stream.

When on the wing the Curlew proceeds with regular strokes of the wing, and does not generally fly fast; when it has occasion to hurry, or to meet a gust of wind, it does not extend its wings at full length, but repeats the strokes more frequently. When in the act of alighting, the Curlew almost closes its wings, and comes down like a ball, until reaching the ground within a few feet, it rises once more in an arched sweep, and thus facilitates its grounding. When several Curlews are alighting thus at the same time, it is a very pretty sight. The light colouring of the under parts of the Curlew, and the position in which it flies, sufficiently dis-

tinguish this bird from the foregoing species: its long legs extended behind, and its straight neck and long arched beak, inform the observer of the species.

By nature the Curlew is timid and watchful, and when put up by a sportsman it invariably flies far away, or leaves the neighbourhood. When the present species is worn out or sleeping, it squats or lies down close to the ground, but not otherwise; and it never hides among long grass or herbage. It is a very customary attitude with the Curlew to stand on one leg, like the storks. The Curlew is sociable towards its own species, but not so towards others: if any of these birds fly over the ground where one of this species is located, and it calls to its fellows, the travellers answer, without, however, stopping, and their note is only lost in the increasing distance, until quite out of hearing.

It is a very rare occurrence to tame a Curlew in confinement, and consequently a difficult matter to keep them for any length of time. The best method is to pinion the bird and inclose it in a large space of ground, where it can feed itself on worms, slugs, and insects, in a semi-wild state.

In a natural state the Curlew feeds on worms, slugs, and small crustacea, and on most insects that occur by the water-side and in moist places. On heaths it is very fond of bilberries, *whortle-berries*, and the like; also blades of grass, and the tops of vegetable productions, besides lichens and twigs. On investigation small pebbles are generally found in its stomach. This bird requires much water, for it drinks several times in the day, and is very fond of bathing.

In the beginning of May the Curlew retires to more northern parts to breed, choosing barren, sandy, or heathy valleys in the Highlands of Scotland, some interiors of the Zetlands, and equally lonely and appropriate spots in other countries not more south than Holland, but as high north

as the arctic circle: it is rarely known that it breeds in the immediate vicinity of the sea. The nest consists of a slight hole scratched in the sand, or in peat earth, and is lined with small twigs of heath about a finger's length. The number of eggs in each nest is generally four, in size and colour as represented in our plate. While the female sits on the eggs, the male is not far distant. The young nestlings are no sooner out of the shell and dry, but they run about; and if an enemy approaches them, they lie down among the most uneven part of the ground, and so close as to allow themselves to be trodden to death without moving from the spot. The parent birds run all the while round about the enemy, in the hope of enticing him away. As soon as the young are able to fly, they are left to shift for themselves.

The greatest enemy the Curlew has is the peregrine falcon; and unless the Curlew can reach a piece of water in which it can dive, the perseverance of the falcon soon enables him to tire out his prey, and master it. Young birds suffer most from the fox.

The measurements of the Curlew differ so much, that we give them from a fine specimen that was killed on the Suffolk coast by a friend, and from which our drawing was made. In length it was twenty-four inches: the beak, nearly six inches; tarsus, three inches and a quarter; the naked part of the tibia, one inch and two lines; the wing, from the carpus to the tip, eleven inches and a quarter. The feathering of the adult male is as follows:—The head, neck, and breast pale grey, tinged with rufous; the shafts and central part of the feathers dusky: upper part of the back and scapulars, dusky; the feathers broadly edged with burnt-umber and brown ochre: the lower part of the back white, with black shaft-streaks: the tail is white, transversely barred with dusky brown and ochre-yellow: lower

part of the breast, belly, and vent, white, with longitudinal dusky spots. The upper mandible clove-brown, and dusky at the tip; lower mandible flesh-red at the base, and dusky at the tip. Iris brown; legs bluish ash-colour. The female is larger than the male, her colouring is more tinged with ash, and her legs brown. The young are smaller according to age, and their beaks also shorter, and by far less curved.

The egg figured 176 is that of the Curlew.



PLATE CLXXVII.

WHIMBREL CURLEW.

NUMENIUS PHÆOPUS.

The Whimbrel Curlew is a well identified, periodical visitant in Great Britain, but far less numerous than the Curlew last described. The northern parts of Scotland are more generally frequented by this bird than the southern, and in the south of England it occurs only occasionally, although they may be seen during their spring and autumnal migrations on our coasts. On the continent of Europe the Whimbrel Curlew inhabits chiefly the most northern countries, such as the Faroe Isles, Iceland, Norway, as high as the arctic circle, Sweden, Lapland, and the northern parts of Russia. In autumn this bird migrates southward, extending along the coasts of the North and Baltic Seas, frequently to Friesland and Holland, but rarely to France. On the continent of Europe below Holland it is rare; but again, on the borders and islands of the Mediterranean, it is more frequent. In North America, Siberia, central Asia, and Bengal, it is said to occur equally. In New Holland it has also been captured, and it seems to inhabit that country.

Like most migratory birds that breed in the northern

regions, it remains there only a short part of the year; thus, we see the Whimbrel Curlew migrating northward in May, and again returning south in July and August; rarely so late as September. When the present species migrates, whether in larger or smaller numbers, the flock flies very high and in the manner of wild geese, headed by one, and following in two rows like the letter V reversed.

Like the Curlew the present species is partial to those sea-shores where the sands extend far and wide at low water, particularly where small patches of sand or islands are formed by the receding waters. Where grassy banks join these sands the Whimbrel Curlew is particularly fond of alighting, and only leaves such spots during the hours when high tide covers the ground; retiring for the time inland: and it seems to be so well acquainted with the precise time of the tides, that it returns to the shore the moment any spot becomes again visible. During the breeding season the present species retires from the sea-shore to the borders of inland seas or banks of rivers, and seeks those dry spots where golden plovers abound, namely, short pasture lands, grass fields, open moors, and even high wastes. During this time of the year it only returns to the water for the purpose of bathing and drinking, but passes the night in the before-named dry localities. At all times the Whimbrel avoids trees and bushes; and during its breeding time alone it is occasionally seen perched on some knoll or low stump of a decayed willow.

The habits and manners of the present species resemble those of the Curlew so much, that to say more on the subject would only be repeating the same history. We may add, however, as a known fact, that the Whimbrel Curlew shews a marked restlessness before rainy weather or an approaching

thunder-storm: at such times the bird repeats its call very frequently, and during the storm seems not only to be low-spirited, but careless of danger; when the weather clears up it becomes lively, and seems to shew its satisfaction in its manners.

The present species is generally as careful of its safety as the former; and when a number of them present themselves on the sea-shore, some few are to be seen watching the approach of danger, in the character of sentinels, which are placed fifty or sixty paces in advance of the party: the cry of these sentinels announces the enemy, and in an instant the whole number are on the wing and soar away at a respectful distance. A young bird now and then, more unwary, flies within reach of a sportsman, and thus becomes the immature specimen in a collection of birds.

The call-note of the Whimbrel is very similar to that of the Curlew, with the difference of its being a note or two higher in the scale and less strong: the nearest description is *twoiwe*, or *tloiwee! Tæi, tæi!* is twice or thrice repeated when the Whimbrel is flying about in search of food, or straying about by itself.

The Whimbrel feeds on insects and worms, but not so much so as the Curlew, for it also consumes small crabs and beetles that it finds on the sea-shore. In dry places it feeds on all sorts of beetles, grasshoppers, crickets, and snails. Whenever it can meet with bilberries (*Vaccinium myrtillus*) it is sure to feast on them with much eagerness; also on whortle-berries (*V. uliginosum*) and crow-berries (*Empetrum nigrum*).

The reproduction of the species takes place within the arctic region, namely, in the Faroe Isles, in Iceland, Scandinavia, and Finland, &c.; the locality being some dry spot,

either on high grass fields or heathy moors, or where stunted and decayed willow-stumps afford a shelter. The nest is either placed beside one of these stumps or on a raised grassy lump of earth. The construction of the nest is very slight, being a sparing accumulation of some dry grasses or vegetable matter, and consequently it is very easy to detect it, when in pursuit of the eggs. The birds invariably run off the nest when approached; and, as they make a great outcry when disturbed, they shew the intruder the way to their nest. The number of eggs is three or four, which are placed with their points towards the centre. Both the male and female sit on the eggs by turns; and as soon as the young are hatched they leave the nest, and very shortly become acquainted with the safest mode of defence, by lying very close to the ground on the slightest alarm of danger. Soon after the middle of June the young are running about and growing very fast; they are then left by the parent birds, which congregate about the latter end of July and return southward. The young are generally ready to follow in flocks at the end of August, and it is a rare occurrence to find an adult bird in their company.

On the island of Rugen many Whimbrel Curlews are taken in autumn by means of horsehair snares; the flavour of the young is very fine, and its meat tender and in very excellent condition. Adult birds that have fed on marine productions taste fishy and rancid.

The Whimbrel Curlew measures sixteen inches in length; the wing, from the carpus to the tip, nine inches and a half; the beak, three inches. It is the same with the Whimbrel as with the Curlew in respect to size at different ages; and when called upon to give the dimensions, it is understood to refer to adult birds. The head, neck, back, scapulars,

wing-coverts, tertials, secondaries, and tail are all of a brownish-white, the feathers having dusky brown centres and shafts; the sides of the breast are also marked with dusky brown spots on a white ground; the under parts are white, most beautifully marked with dusky spots. The beak is dusky, and yellow at the base of the under mandible; the iris is brown; quills dusky; legs bluish ash-colour. The chin is white.



PLATE CLXXVIII.

SPOTTED REDSHANK.

TOTANUS FUSCUS.

The Spotted Redshank is a rare occasional visitant in the British Isles; but being chiefly seen in its winter garb, it is, consequently, not always recognised as being identical with the species now represented. In the London market this bird is now and then brought for sale, in autumn and winter. The occurrence of the dusky sandpiper of Selby, which is the present species in summer plumage, has only taken place once or twice in this country, in an intermediate stage. This species is more numerous in North America than in any other quarter of the globe, particularly during the summer. In Europe and Asia it occurs but sparingly, and we have no record of its ever having visited Africa. The summer months are passed by the Spotted Redshank in northern climes, such as Iceland, Norway, Lapland, Siberia, Greenland, and the coast of Denmark, from whence specimens in summer plumage are obtained. Soon after the breeding season is past, and the birds have moulted, this species migrates southward, where they touch the coast of Great Britain and Holland, and pass on to the south of France, Spain, and Italy. In Asia it extends as far as Bengal. The result of these observations shews that the Spotted Redshank is chiefly found, both in its winter and summer quarters, in countries possessing one maritime border.

The period of its migration is from the middle of August to September in the autumn, and during April and May in the spring of the year, at which time pairs and single stragglers only appear; while, in the autumn, one of these birds may sometimes be seen in company with a flight of redshank sandpipers. Where the present species are more abundant, it is said that they journey generally in groups of from five to ten, and at times even twenty or thirty: under such circumstances, they fly very close together, and when on the ground they keep closely grouped.

We have before observed that the Spotted Redshank is chiefly met with in countries that are bordered on one side by the sea; at the same time, it is rarely found on the sea-coast itself, except where the shore is muddy and soft; but its favourite haunt is beside rivers, lakes, and ponds of sweet water, where the ground is boggy, and to some extent flat and open.

The Spotted Redshank rests on the ground, by the water-side, most generally during the day, and also at night when the night is very dark. Its position during roosting is either standing on one leg, or squatted with its head under its wing.

The appearance of this species is very handsome when walking on the ground, and its movements elegant: it can run very fast at pleasure, owing to its long legs. When in the act of feeding it walks with its beak near the ground; and when it finds some prey, it reaches out its neck quickly at some length, and draws it in again immediately. Wading is a daily habit with this species; and when it gets beyond its depth, it swims very readily with ease and for some distance, nodding at every stroke of its feet; and in diving it excels many water-birds, if urged by the approach of danger in any form.

On the wing the present species is swift and strong: it flies at a great height, and, when in the act of alighting, drops it-

self down in a sloping line, with its wings almost closed, and often in very elegant evolutions.

The Spotted Redshank is a careful but not a shy species; for when alighting and coming in contact with a human being, or when approached by one when on the ground, it takes no heed, but allows the person to come within fifty or sixty paces. On the approach of a bird of prey, it lays itself close to the ground, or dives when on the water. It has already been remarked that the Spotted Redshank flies as well as walks very close to its companions; but when one out of a group is shot the remainder fly or walk away without taking the least notice of their less fortunate companion, and unconcernedly pursue their route.

The call-note of the Spotted Redshank is peculiar enough to be readily distinguished from others of its family, and is constantly uttered either flying or walking: its note is shrill, and easily to be imitated by whistling, sounding like the word *tshuwit, tshuwit!* quickly uttered. It is not very difficult to tame one of the present species, if winged or caught in a snare; and it will become so familiar, that its keeper may teach it to take its food out of his hand. Although it may appear strange, this bird, like most of the waders and snipes, can only be tamed when kept in an inhabited room, but not if shut up by itself: it never lives longer than one year in confinement.

The food of the Spotted Redshank consists of small shell-fish, frog spawn, and aquatic insects in all stages; also small frogs, beetles of divers descriptions, and worms, but no vegetable matter of any kind. In confinement, this bird will readily take worms and pounded rusks, and requires a flat dish continually replenished with fresh water.

Nothing has hitherto been recorded of the nest and eggs of the Spotted Redshank, owing, most likely, to the unfrequented locality where it breeds.

The Spotted Redshank is nearly twelve inches in length, and the expanse of its wings nearly twice as much; the wing, from the carpal joint to the tip, seven inches: its tail measures three inches and three lines. The wings, when closed, reach a trifle beyond its tail. The texture of the feathering of its head, neck, and upper parts is silky and soft, but the under parts are downy and close, like those of sea-fowl.

The beak is long, slender, and a little turned up towards its tip; the upper mandible projects beyond the lower, and both terminate more or less in a pointed or tapering form; its sides are compressed, and the beak is rather rounded for more than half its length from the tip. The length of the beak is about two inches and three-quarters, in adult birds; of a glossy black, except the base of the under mandible, which is flesh-red.

The legs are long and slender, the unfeathered parts above the knee measure about one inch and a half in length; the tarsus two inches and eight or nine lines; the middle toe, including the claw, one inch eight lines; the hinder toe about four lines. The colour of the legs in adult birds, in summer plumage, is transparent reddish brown, in young birds yellowish red; and this colouring varies with age and season: the claws are in all stages black.

The plumage of the adult bird in summer is dusky, with white edges to the feathers, in varying shapes, as represented in our plate; the head and neck are of a uniform dusky colour, with a bloom of greyish-ash, except the lower eyelid, which is pure white; the lower part of the back, the rump, and upper tail-coverts are white, transversely barred with dusky; the tail-feathers cinereous dusky in the centre, and broadly edged with triangular white spots. Between the male and female there is no material difference, either in size or plumage.

The plumage of the young bird is the one in which we meet with the greater number of specimens, and consequently are most acquainted with. From the base of the beak extends a white streak over and around the eye; the chin is also white. The reins are dusky; the top of the head dusky, generally without spots, sometimes, however, with a few whitish edges to the feathers; the cheeks are mottled with dusky and white in streaks; the hinder part of the neck cinereous dusky, with pale rusty streaks and spots; the front of the neck has the same colouring, but much paler. All the under parts, as breast, belly, and vent, spotted and lined with very pale grey, dusky and rufous, on a dirty white ground. No other species of wader having any markings on the breast and belly, but being, on the contrary, pure white, the present species is thereby easily distinguished.

The upper part of the back, and the pointed tertials, are dusky, darkest on the borders of the feathers, and reflected with pale green and purple like changeable silk; the wing-coverts and secondaries the same, but much paler; the larger wing-coverts dusky, with white edges at their tips. The shaft of the first quill-feather is white, the others hair-brown, (which is also the case in summer plumage.) The inner webs of the first five quill-feathers are mottled towards their roots with pearl-colour and dusky, which colouring terminates in triangular spots towards their centre and tips; and these markings increase and extend over the outer webs of the secondaries, and thus give the feathering a generally mottled appearance.

The lower part of the back is pure white; the rump is spotted with dusky on a white ground; and the upper tail-coverts are barred with these colours; the under tail-coverts the same, but paler. The tail-feathers are dusky, with black shafts, and are darkest towards their edges. The legs are pale orange-red.

PLATE CLXXIX.

REDSHANK.

TOTANUS CALIDRIS.

The Redshank is indigenous in Britain, frequenting the soft muddy flats on the sea-coast in autumn and winter, and the banks of rivers, lakes, marshes, and ponds during the breeding-season: it is of no uncommon occurrence in the localities that suit its habits, and is consequently very local.

The distribution of the present species extends over the greater part of the known world: in Europe it is met with in Iceland, Norway, Sweden, Denmark, in all the islands of the North Sea and the Baltic, and very frequently in Holland and the northern parts of Germany; it is not rare in appropriate places of central and southern Germany, and also of Hungary, and during the winter season is plentiful in Italy, Greece, and Spain. In Asia, Africa, and North America it is equally well known and plentiful.

As a migratory bird, the Redshank travels northward, on the Continent, in the months of March and April, for the purpose of breeding. The old birds, which are said to breed in the most northern countries before named, are those that pass through last; and the younger, which take up their abode in the more temperate regions, arrive first. How beautiful this provision of nature, to save the younger birds the fatigue of a lengthened journey! We may suppose, therefore, that birds in the intermediate ages are found breeding in intermediate



countries, between the highest northern latitudes and the most southern parts, where the reproduction of the species takes place. Thus, also, by the adult birds travelling later in the spring towards the north, time is allowed for the breaking up of the severe frosts before their arrival.

Again, in autumn, the migration of the Redshank begins in July and lasts till the end of September: by the middle of the latter month the latest parties arrive, which must necessarily be the young birds, which have remained behind in order to mature for their long journey, and doubtless rest at different stages to recruit, and thereby naturally are longer on their route. These birds journey in the evening or during the night, but hardly ever during the day. The adult birds generally migrate singly or in pairs; the young either in families or flocks. It has been observed, that, where Redshanks cross the Continent of Europe in autumn, their numbers are greater than in the spring, which is supposed to be because those that breed on the northern coasts of Europe return bringing their young families with them, or the young birds joining, form larger groups; although their numbers bear no comparison to those that pass along the coast. The Redshanks, when they arrive at their breeding-places, appear already in pairs.

The favourite locality of the Redshank is the sea-coast, and also extensive marshy swamps, and open flats intersected by rich meadows and boggy ground, where neither trees nor buildings are to be found, since this species avoids all cover, and the vicinity of human habitations. During the breeding season, the Redshank is very frequently found on the borders of inland seas or lakes, as well as near the coast: it requires at all times sweet water; nevertheless, they are regular visitors of the marine mud and bog during low water.

The Redshank is a very beautiful bird, and easily distinguished from others of its family by the predominant white

of its feathering, and its peculiarly beautiful red, long, and slender legs, which shew off as much when on the ground as in flight. Its attitude when walking is very graceful and elegant: when running, it moves about with a wonderfully light step, hardly touching the ground with the ball of its feet. It rarely runs, unless it is provoked so to do. It wades up to its belly, reaching its head down under water at full length, but does not dive or swim by choice. The flight of the Redshank is generally performed with quick motions of the wings, which are not opened at full length, although the bird floats frequently some distance on the wing during the pairing season, in fine, still weather. When alighting it is very beautiful to see this bird, just before coming to the ground, turn up its wings, as pigeons are known to do, and shewing thus the white under-surface. The Redshank is at most seasons a very shy bird, never hiding among herbage, but frequently seeking its safety in remaining motionless among the uneven surface of the boggy ground it frequents: but when in open and flat situations, the attempt to approach this bird with the view of killing it by a gun-shot is vain; for under such circumstances it takes wing in good time, and flies high to a great distance beyond pursuit. It has already been remarked, that the present species rarely migrates in flocks, unless they are young birds, for it is a rare circumstance to see more than three or four adult birds together. The call-note of the male Redshank, during the pairing season, sounds like the word *dliddle*, *dliddle!* at other times only *dgæ*, *dgæ!*

It is not difficult to keep the Redshank in confinement in a sheltered place, or a walled garden where no voracious quadrupeds, such as cats or vermin, can molest it, and where it can feed itself plentifully on worms. The food of the Redshank, in a natural state, consists in aquatic insects, beetles, worms, and grasshoppers, &c.: by the sea-

side it feeds on soft insects, and portions of weeds and mosses.

The nest of the Redshank is placed on the ground in a slight hollow, or on a bundle of dry flags. It is lined with a few grasses, and situated mostly very near the edge of a bog or swamp. It is not difficult to find the nest of the Redshank when breeding, for the birds almost invariably fly round the intruder, uttering their alarm-note incessantly. The eggs are never more than four in number, and marked as represented in our plate. In fourteen or sixteen days the young are hatched and run off the nest, following their parent as soon as they are dry, and learn from her the manner of seeking their food. The male bird cares no more for his young brood after they are hatched. The young birds are very soon fledged and able to take care of themselves.

The size of the adult Redshank is nearly twelve inches; the expanse of the wings twenty-one inches; the wing, from the carpus to the tip, six inches three lines; the tail two inches and a half: the tail consists of twelve rounded feathers, the central feathers, being longer than the outer, give the tail a fan-like shape. The beak resembles that of the spotted redshank, and measures one inch ten lines in length; the basal half is red, and the tip dusky black. The iris is dusky brown, the eyelids and orbits white; the legs are clear vermilion-red. The tarsus measures two inches, the naked part of the tibia nearly one: the claws are black.

In adult summer plumage a white streak extends from the base of the upper mandible over the eye. The head, nape, back, scapulars, and wing-coverts are cinereous brown, with olive reflections; the shafts of the feathers black: those of the scapulars and greater coverts have some small transverse dusky markings. Rump white. The sides of the head, neck, and all the under-parts white; the centre of each feather marked with a large dusky spot: on the under tail-coverts and

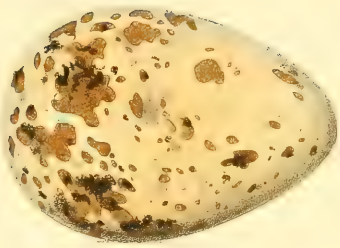
belly the dusky marks spread into oblique lines. The tail and its upper coverts are transversely barred with black and white: on the four central feathers the white is tinged with ash.

In winter plumage, the head, nape, back, scapulars, and wing-coverts are cinereous brown, with darker shaft-streaks. Throat, side of the head, front of the neck and breast, greyish white, with narrow brown shafts; rump, belly, and abdomen, white; legs paler red; iris brown:

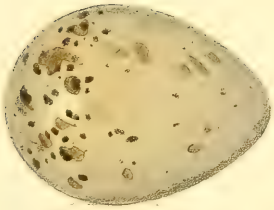
The male and female differ little in plumage, but the latter is the largest.

Our plate represents a bird in intermediate plumage.

The egg figured 179 is that of the Redshank.



175.



176

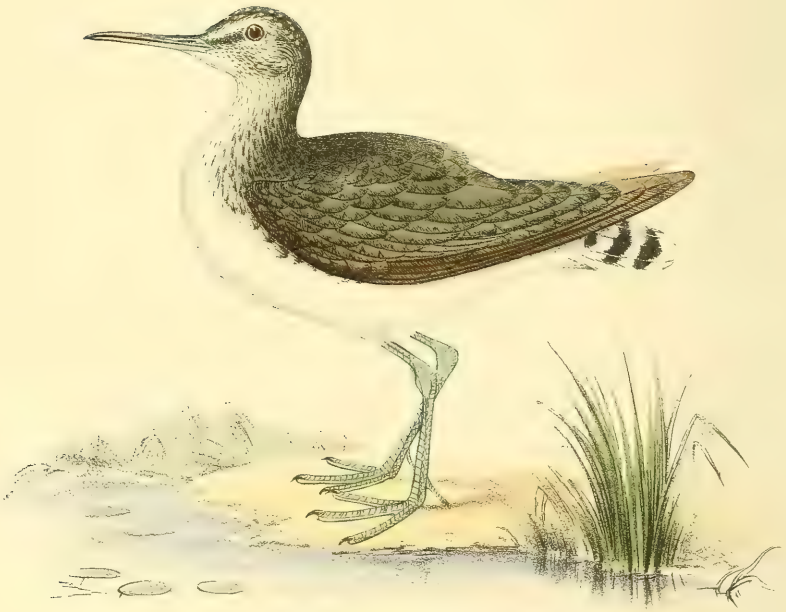


PLATE CLXXX.

GREEN SANDPIPER.

TOTANUS OCHROPUS.

The Green Sandpiper visits this country in spring and autumn, but is not very common. Some instances have been noticed by ornithologists of its breeding in Britain, but this is very rare and uncertain. The geographical distribution of this Sandpiper extends over the temperate zones of the four quarters of the globe: in Europe it does not appear further north than the central parts of Sweden; and towards the south it reaches Italy and Greece, but is nowhere plentiful. In April and May the Green Sandpiper migrates northwards for the purposes of breeding; and by the end of July it begins to move back again to the south, from which period the autumn migration lasts till the beginning of September. Specimens have been seen and obtained after that time, which is, however, owing to extraordinary circumstances of very mild weather or late broods.

The Green Sandpiper journeys mostly alone, or in pairs. The greatest numbers that are seen congregated together, or flying in flocks, are six or seven, and these are generally young birds; adult birds are more solitary, and never seen in companies. Its migration is performed during the night, from dusk till sunrise. During the day it frequents the gravelly and moist banks of rivers, lakes, and canals, but very rarely the sea-side; and when disturbed it flies invariably

to a great distance on its way, either north or south, according to the time of the year in which direction its destination lies. It flies always at a great elevation, from whence it descends like a stone to the spot where it intends to alight, either for rest or food. Open exposed river banks, destitute of grasses or weeds, do not harbour the Green Sandpiper, for although it does not conceal itself among herbage, it invariably sojourns in its shelter, and is also more frequently found in situations like the woodcock, among wet or swampy copse-wood, or ditches that are among underwood, than in more open spots.

The Green Sandpiper is a very handsome little bird, and may be recognised by its snowy-white rump and barred tail-feathers when flying, in which it greatly differs from all others of its family. The present species runs about on the ground with ease and agility, and, if necessary, with great swiftness. The flight of this Sandpiper is exceedingly quick, and the bird is very strong on the wing. It does not open its wings generally to their full extent, but moves them very quickly. When alighting, it almost closes its wings, and shoots down swiftly until it nearly reaches the ground, and then breaks its fall by one or two short turnings. Sociability is not one of the recommendations of this species, for it neither associates with its own species, except during the breeding-season, nor with any other Sandpipers; it is also a very shy bird, and its capture is facilitated chiefly by its partiality for cover, from whence it now and then perceives the approach of its enemy too late. If the Green Sandpiper is taken by surprise in its favourite covered haunt, it flies off low to the ground, without uttering the least noise until it reaches an opening, and then it utters its cry and mounts high in the air.

The call-note of the present species sounds like the words *dlwee*, *dlee*, *dlee!* quickly repeated in a high tone; and also *dick*, *dick!* the latter in the spring of the year.

The food of this bird consists of small insects, their larvæ and worms, which it finds on the surface of soft mud or water: it never consumes vegetable matter. The Green Sandpiper is said to breed on the banks of running streams, where the nest is so hidden among grasses, or under overhanging bushes or trees, that it is exceedingly difficult to find it; and this may be assigned as a reason why the eggs of this bird are so rarely obtained. The eggs are four in number, of a greenish-olive, with very dark markings or spots. We are unable to give any more particulars respecting the incubation or young birds, owing to the very rare occurrence of it within our reach.

The measurements of the Green Sandpiper are as follows :— Entire length, nine inches and a half; the wing, from the carpus to the tip, five inches and eight lines.

The top of the head, nape, back of the neck, back, and wing-coverings are dusky green, studded with triangular small white spots. The quill-feathers are dusky; rump and upper tail-coverts pure white; tail white, the two middle feathers barred with dusky black; the next less barred, and the outer white, with only one spot at their tip. The under parts are white, from the chin to the tip of the tail, with exception of the sides and upper part of the neck and breast being streaked with dusky cinereous ash and pale green. Over the eye extends a white streak, that originates at the base of the upper mandible: between the beak and the eye is a patch of dusky and grey. The eye is dusky; beak dusky black, and greenish at the base of the under mandible: legs green; claws dusky.

The egg figured 180 is that of the Green Sandpiper.

END OF THE FOURTH VOLUME.

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